

Figure 1

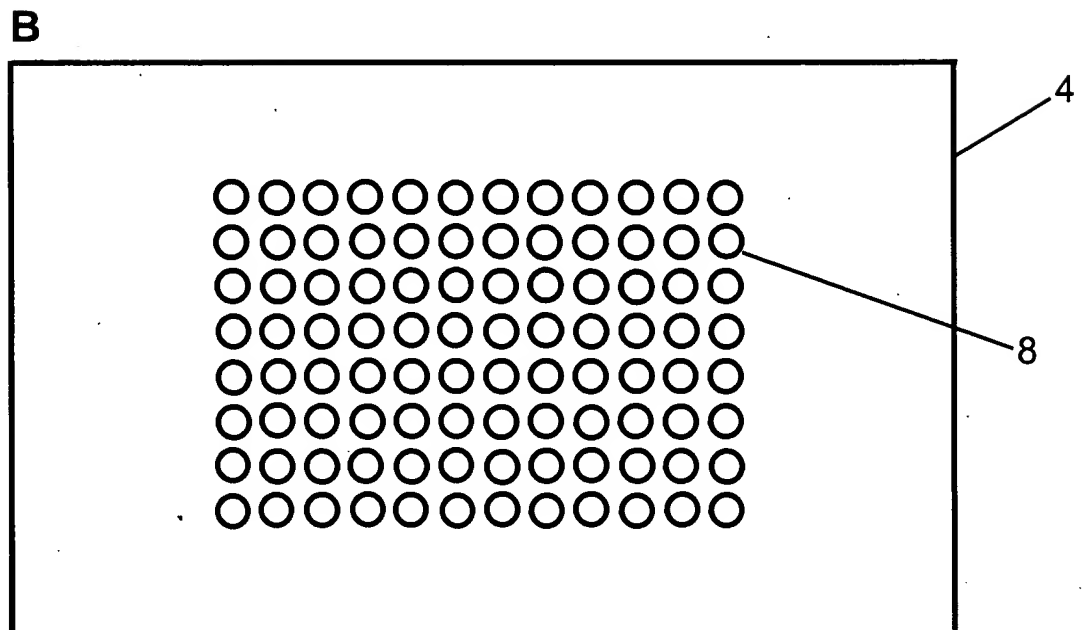
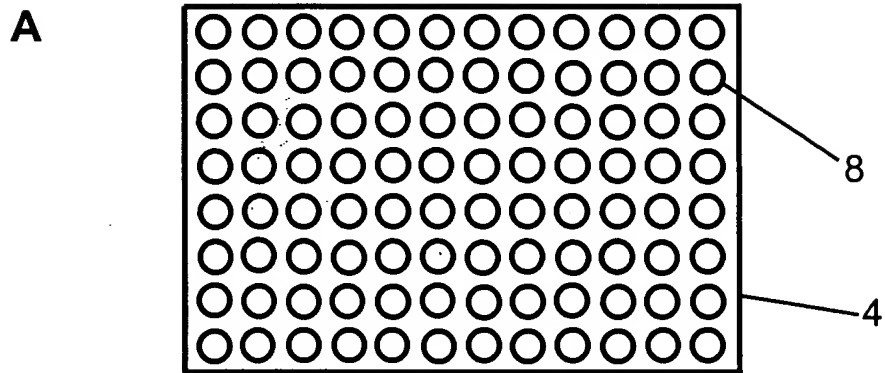


Figure 2

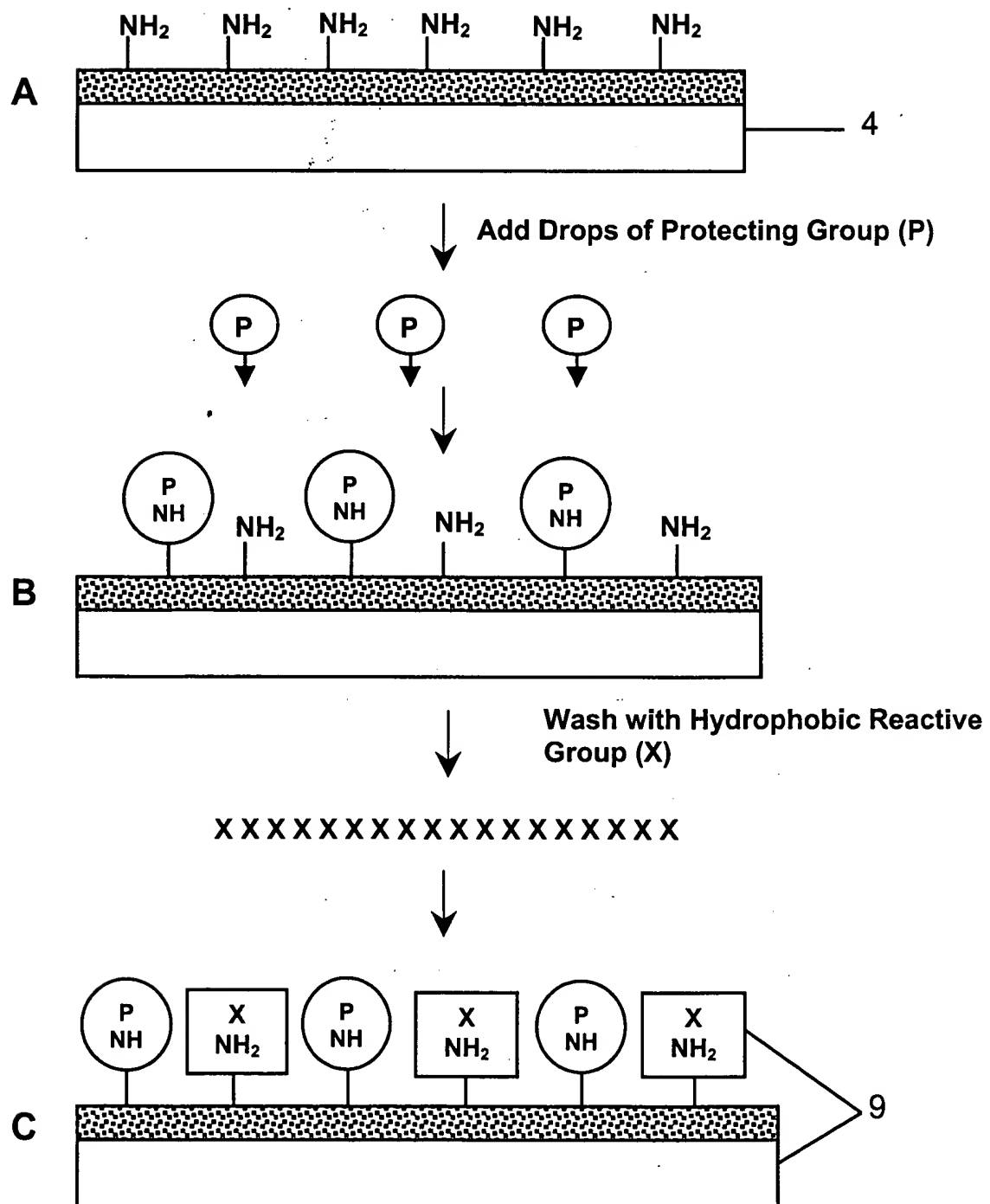


Figure 3A

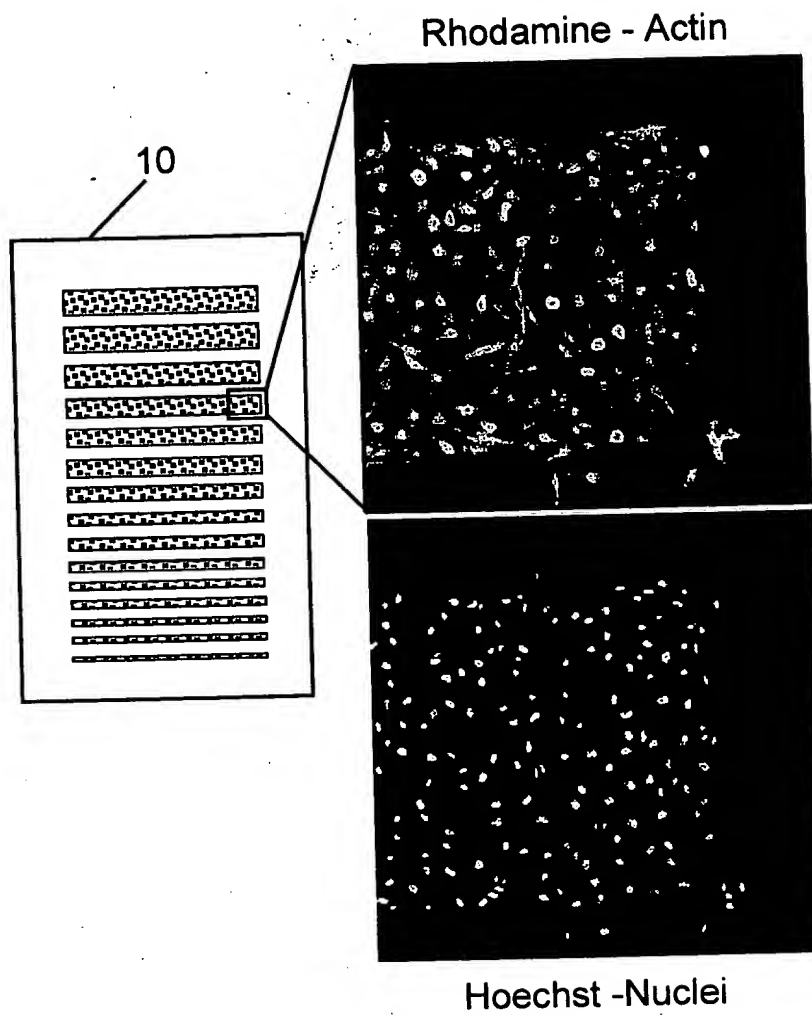
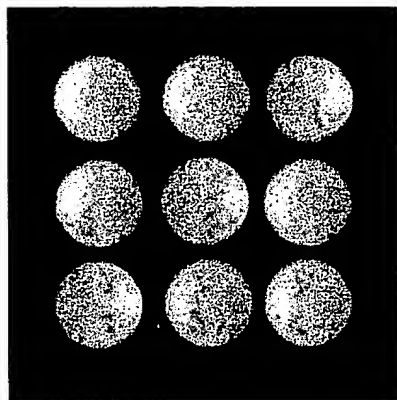
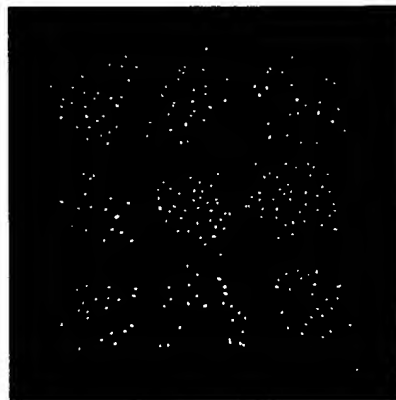


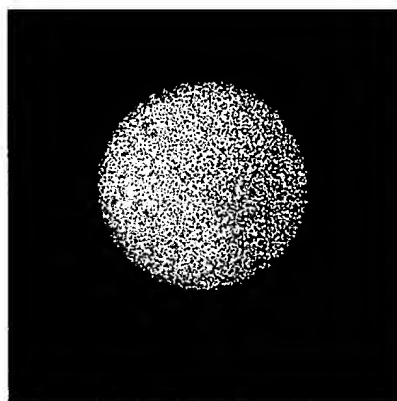
Figure 3B



Sodium Fluorescein binding to Cell Chip to identify the location of 200 um spot patterns.



Fluorescent cell attachment of L929 cells to patterned spots (low magnification, 4x)



Sodium Fluorescein binding to Cell chip to identify the location of 400 um spots patterns.



Fluorescent cell attachment of 3T3 cells to patterned spots. Nuclei (above), Actin in same cells (below) (higher magnification, 20x)



Figure 4

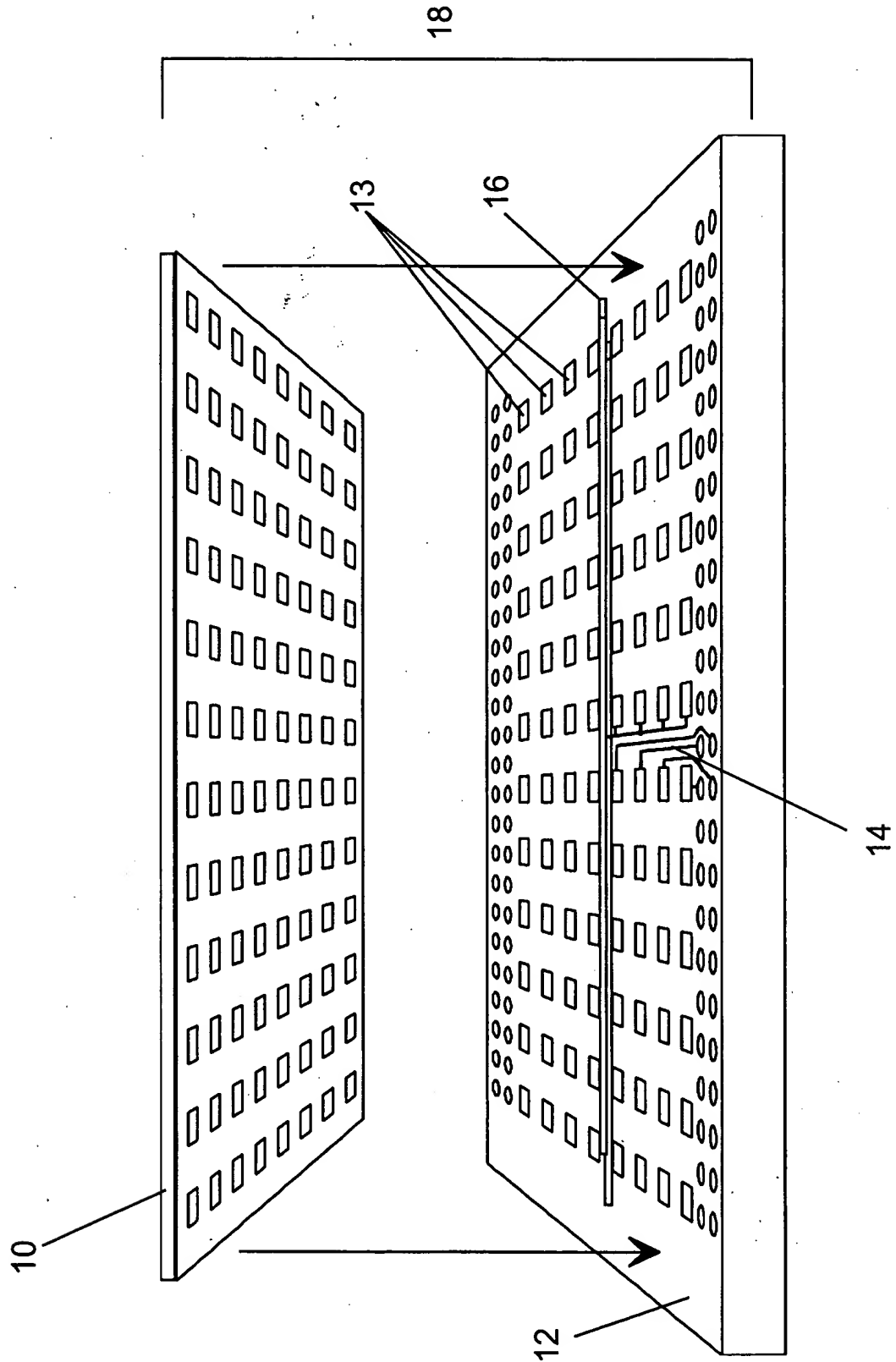


Figure 5

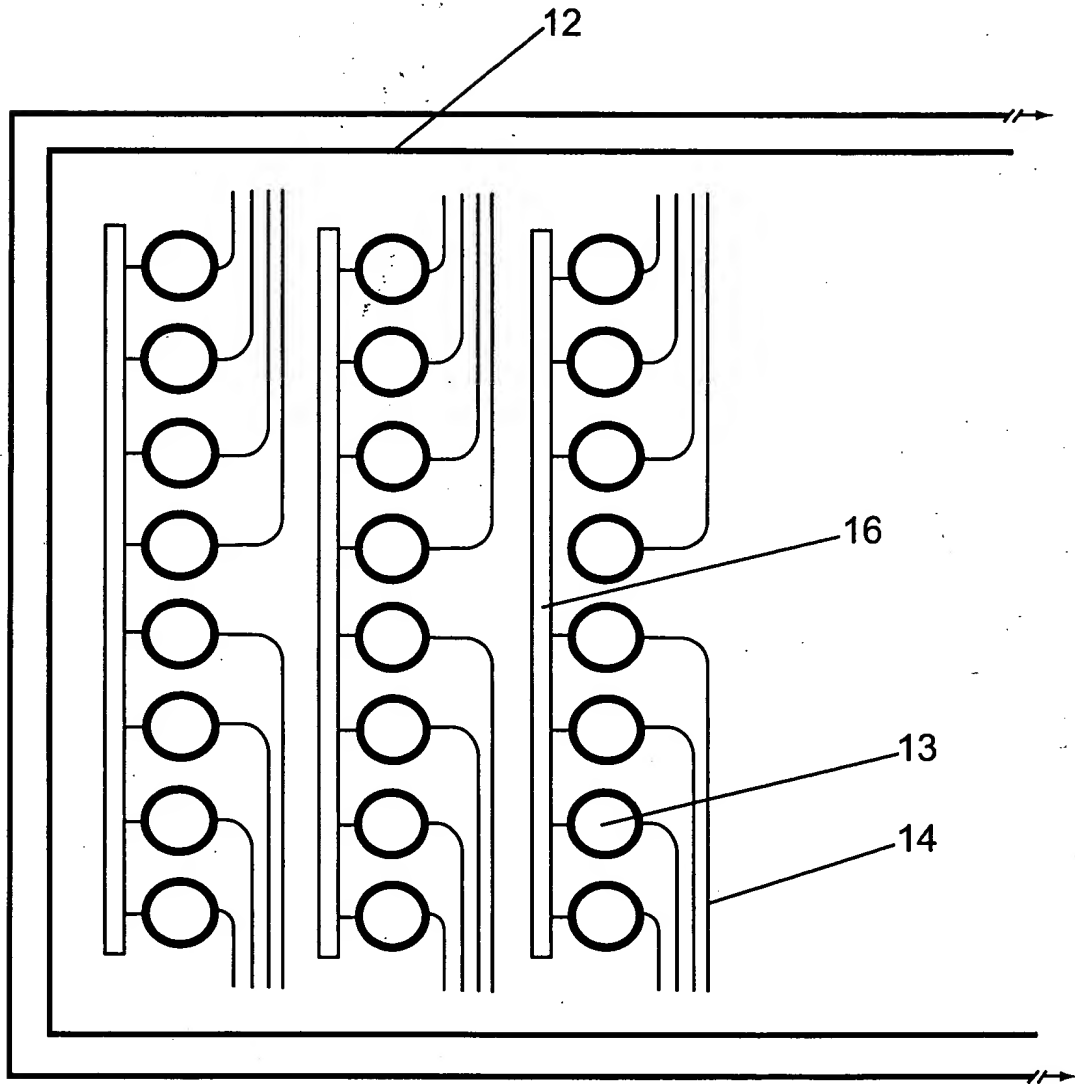


Figure 6

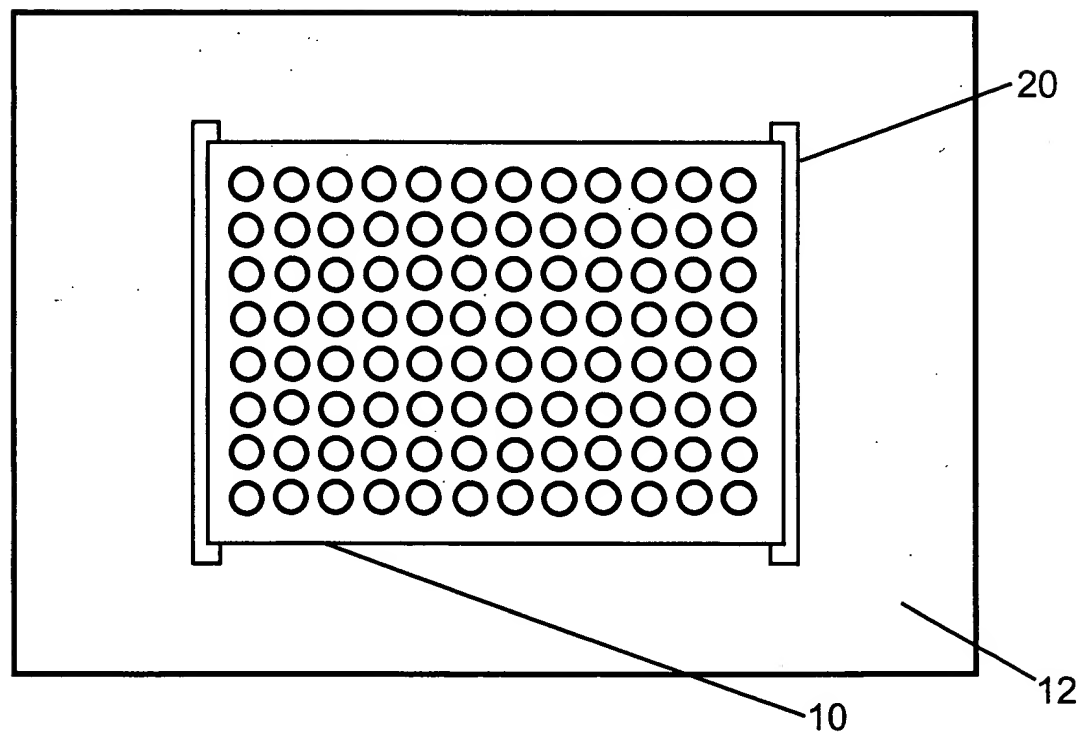


Figure 7

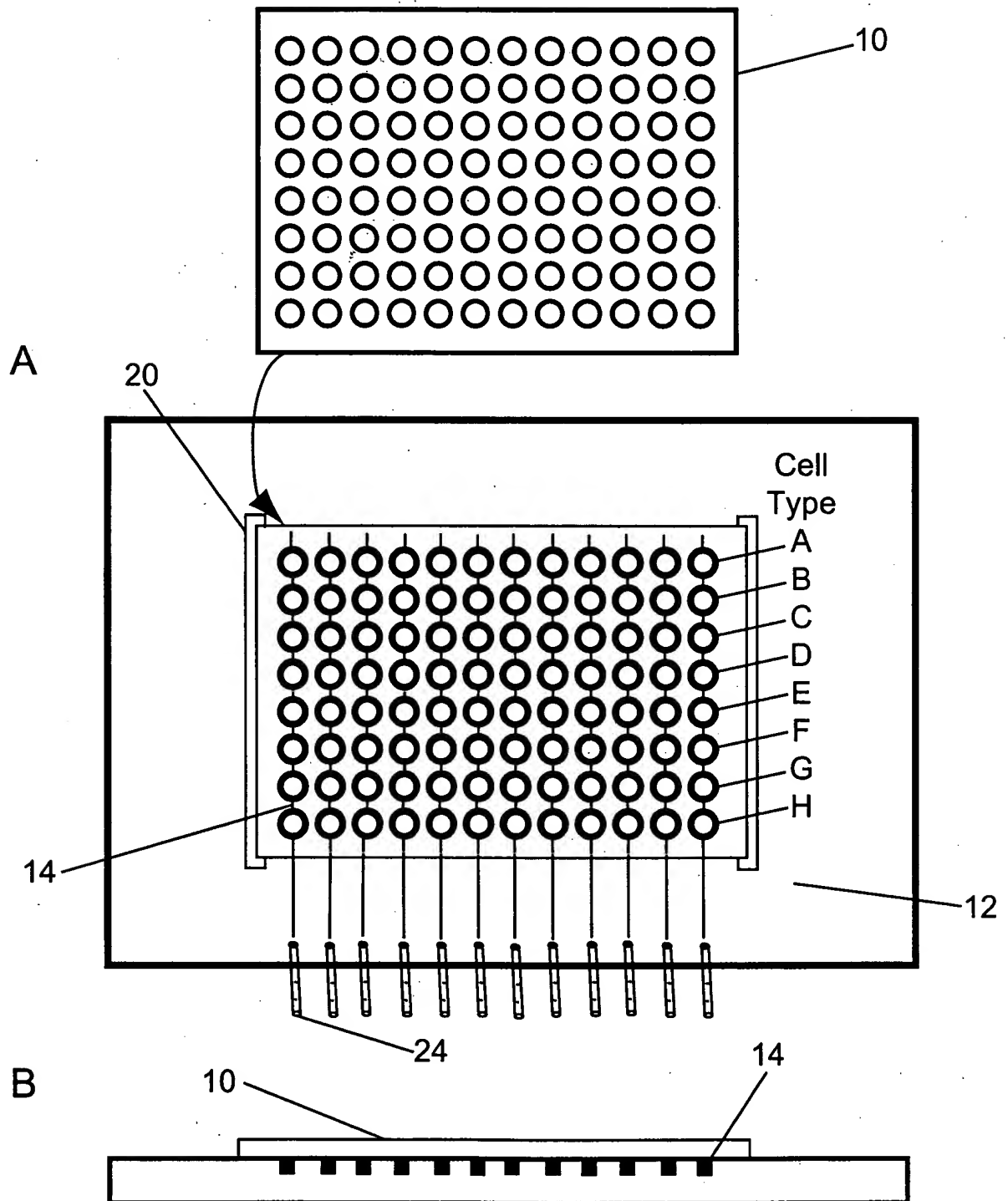




Figure 8

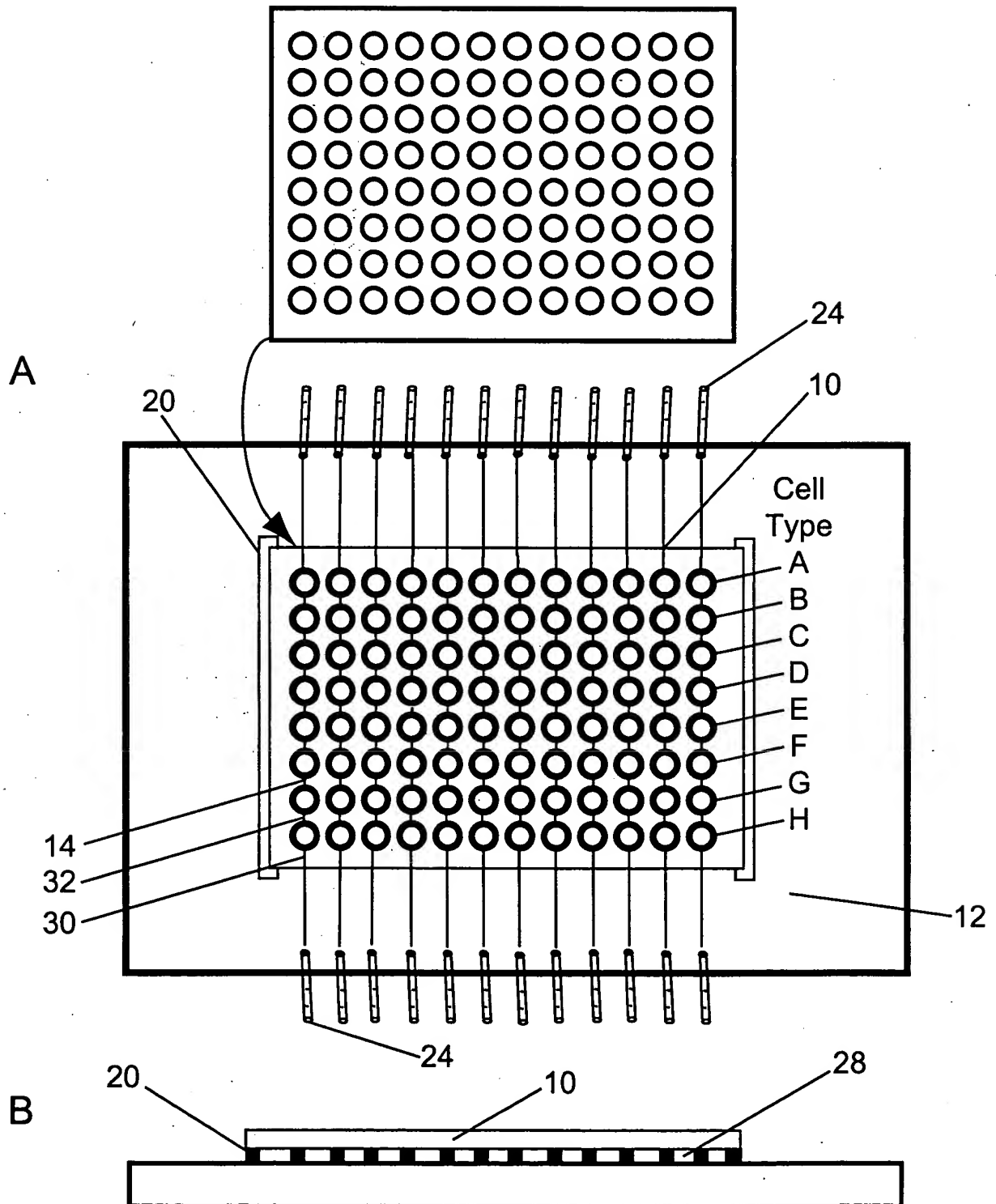


Figure 9

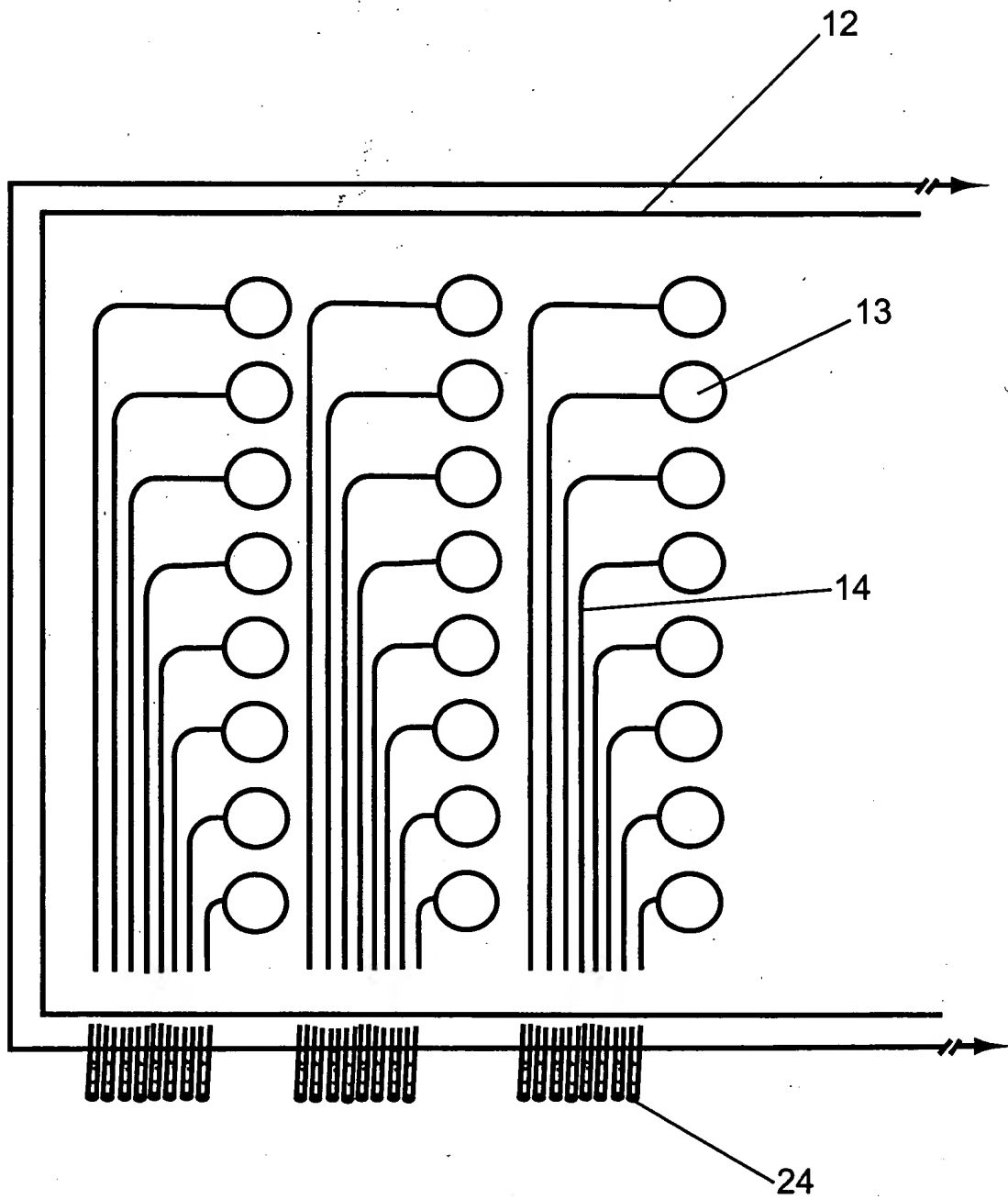


Figure 10

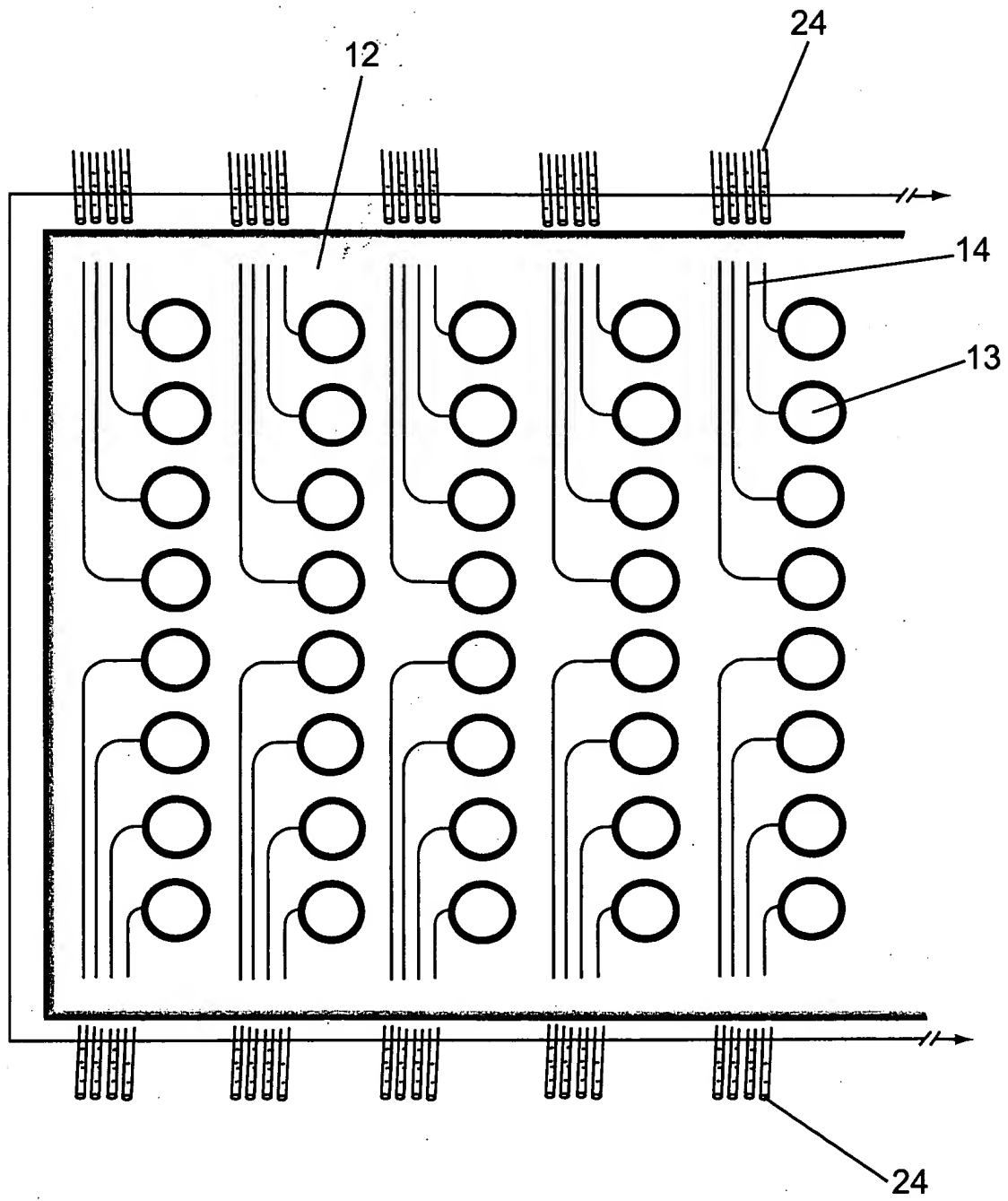


Figure 11

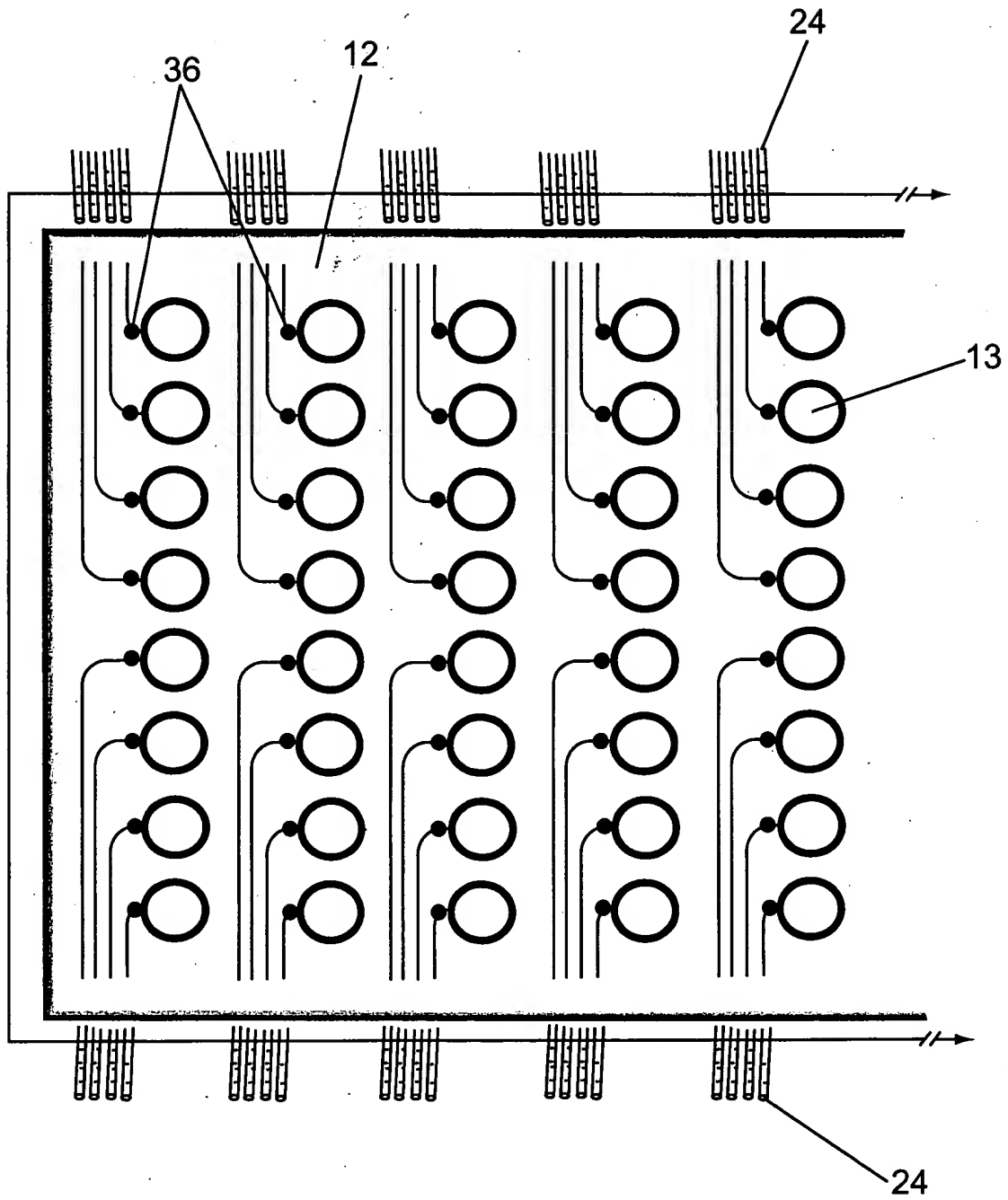


Figure 12

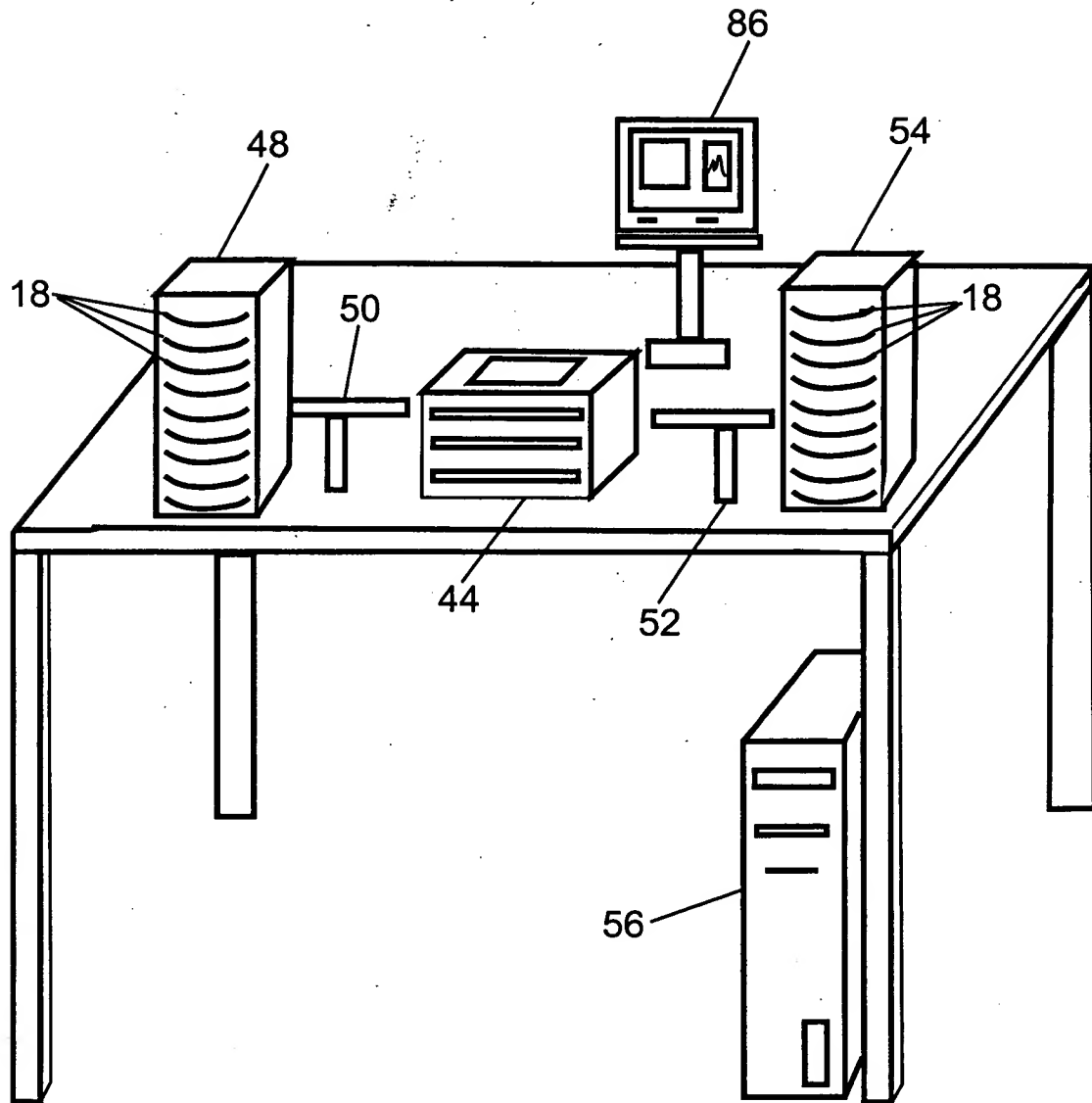


Figure 13

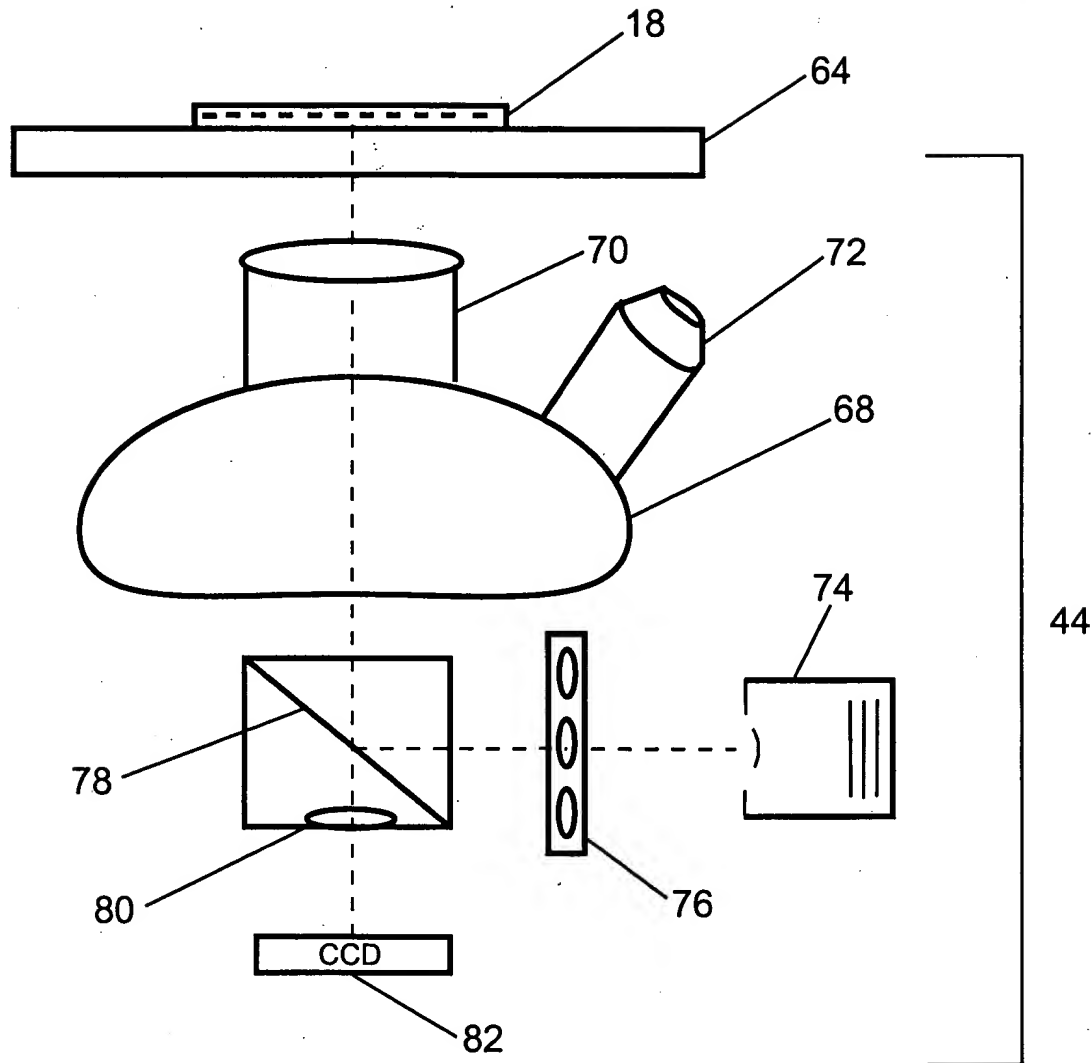


Figure 14A

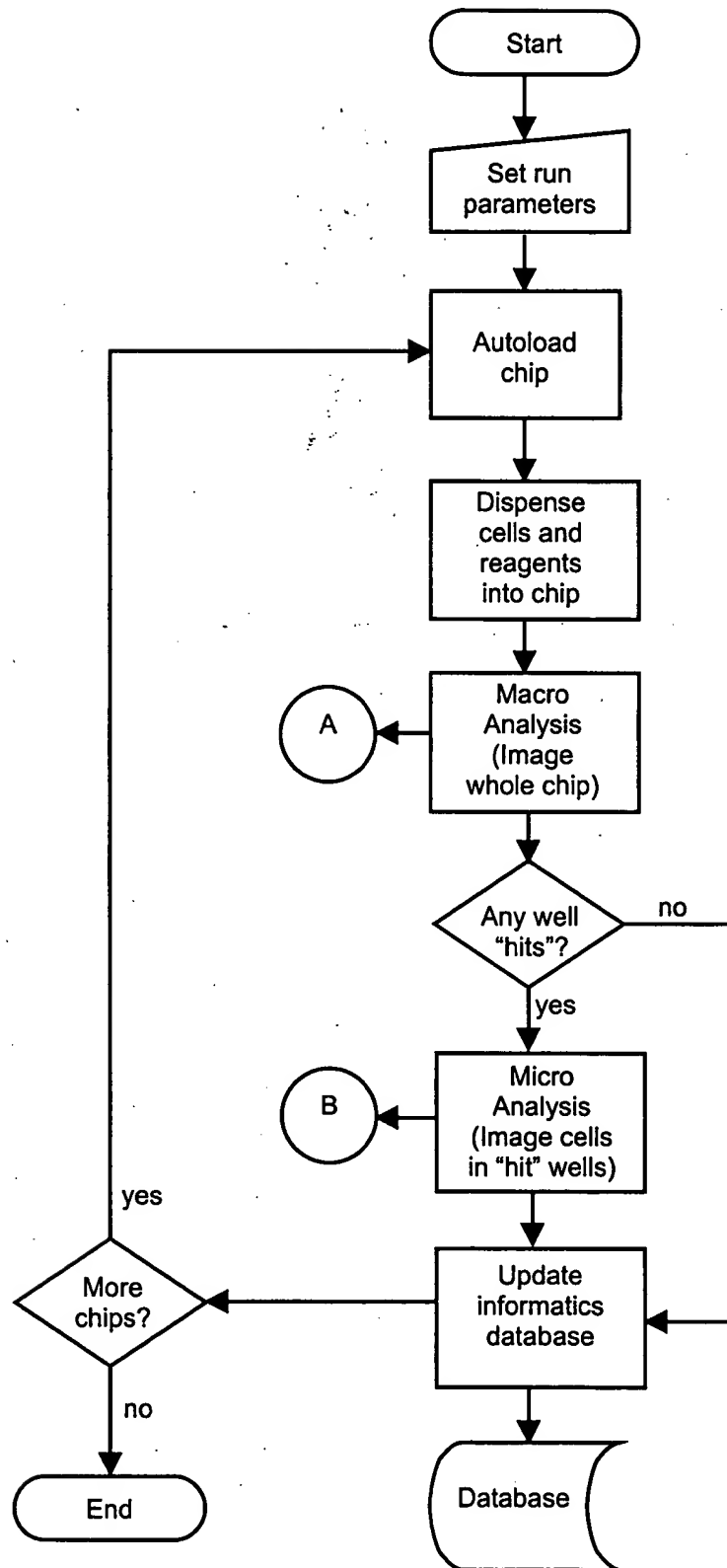


Figure 14B

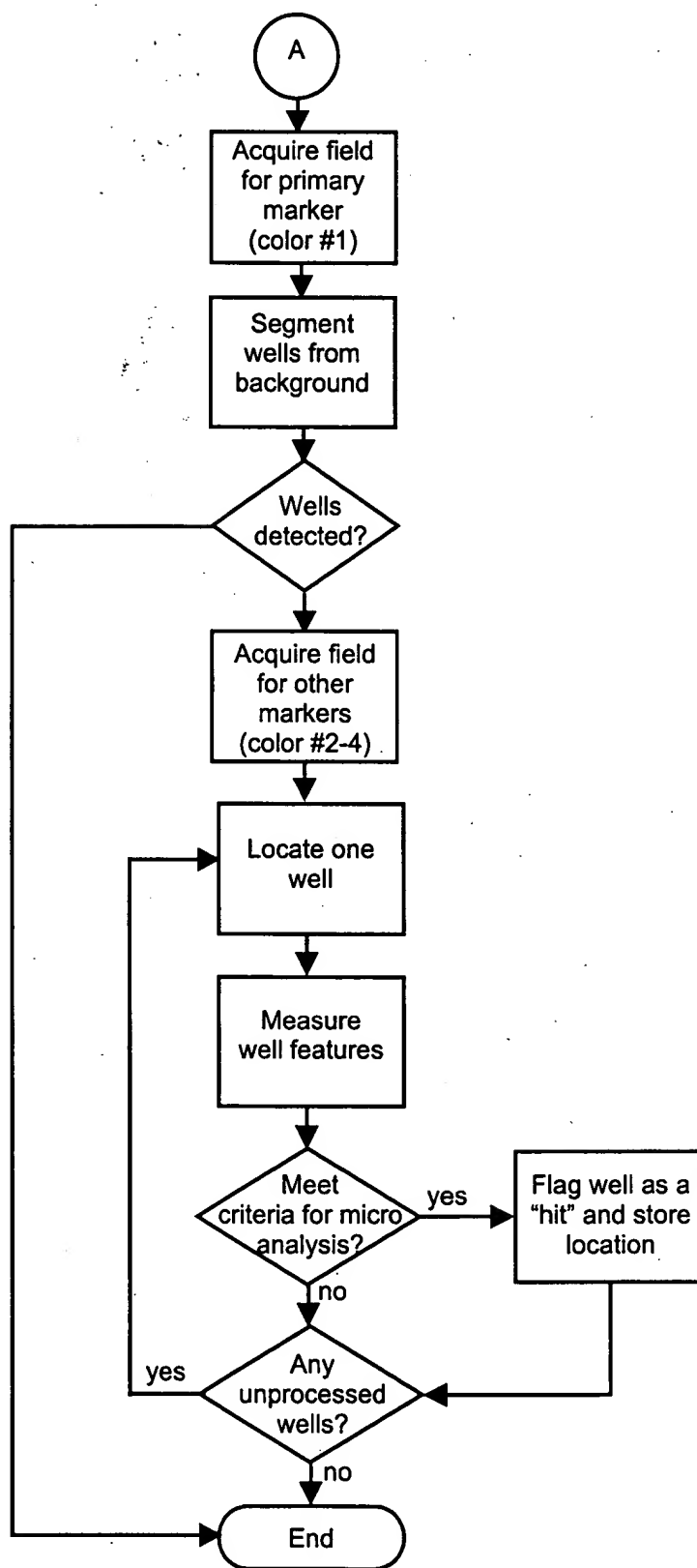
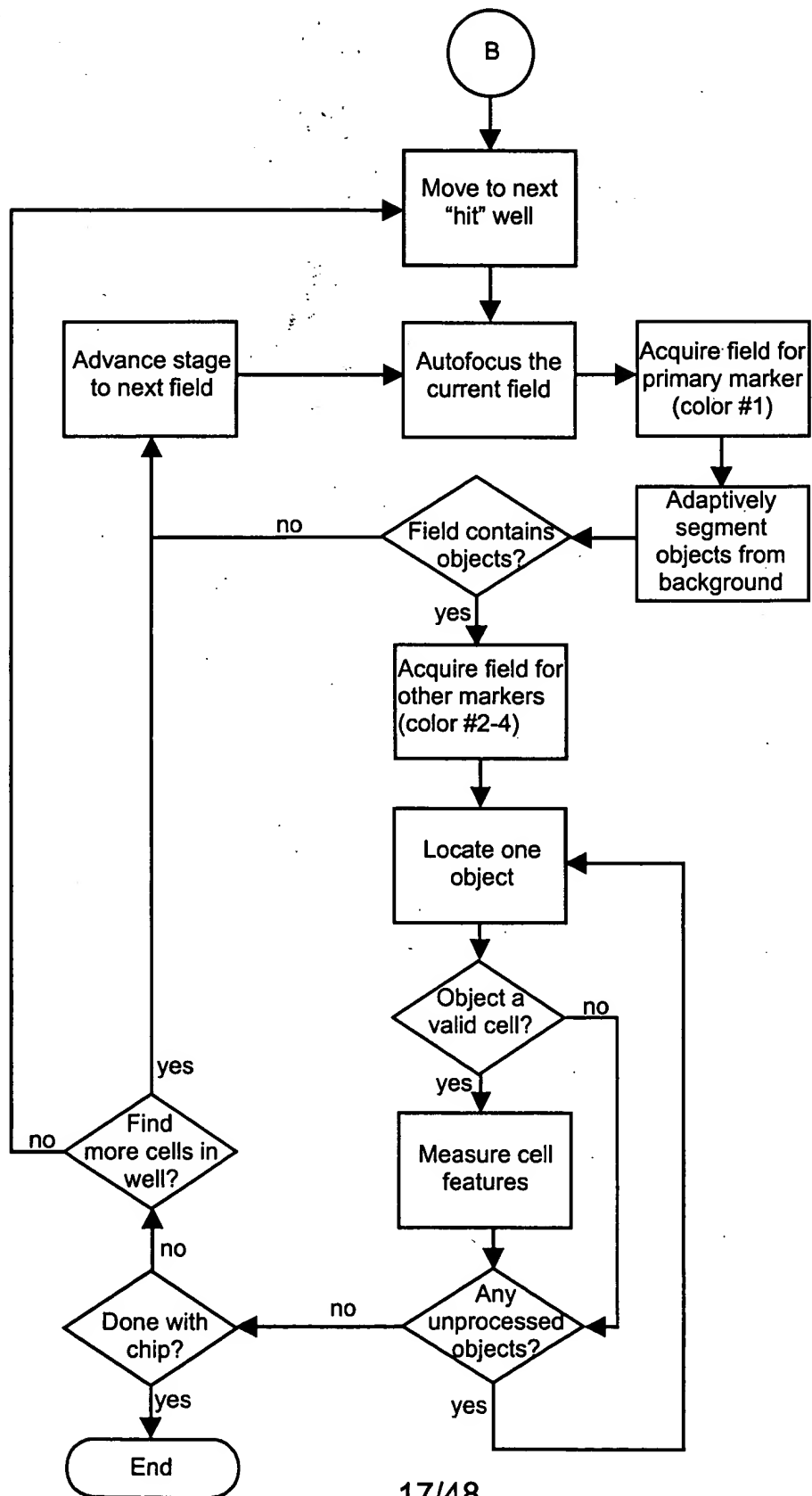




Figure 14C



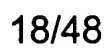
[illegible]

Figure 16

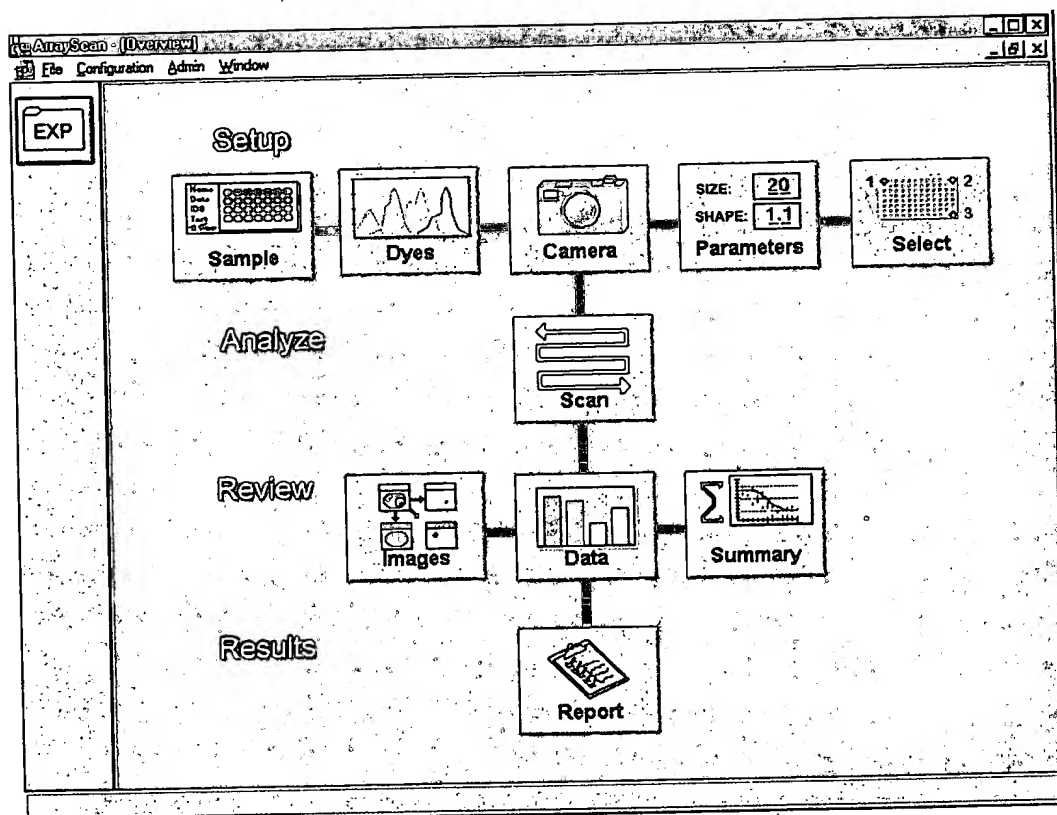
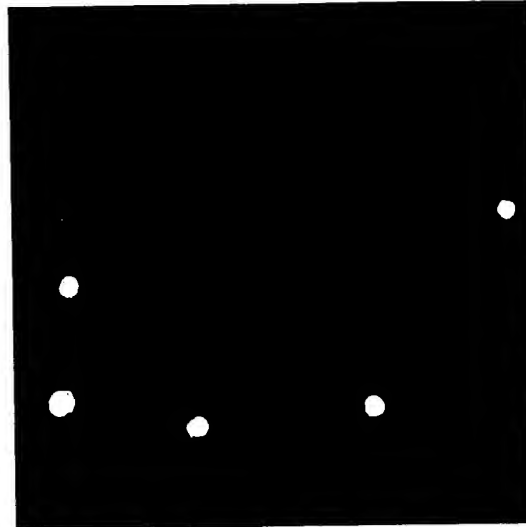


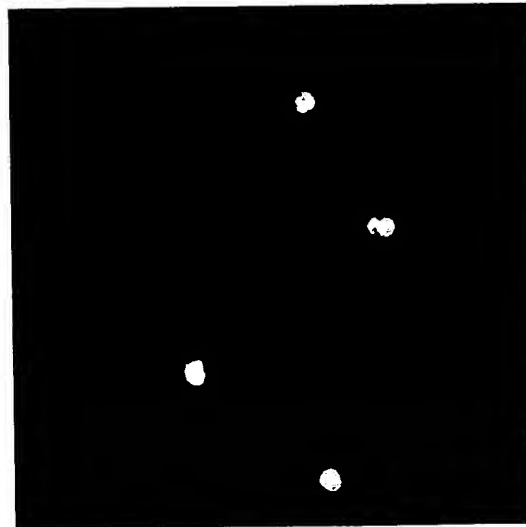
Figure 17

**A**



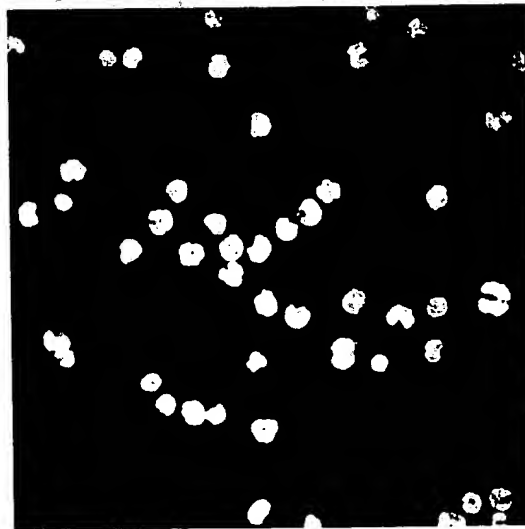
**Control  
No Coating**

**B**



**IgM  
Coated**

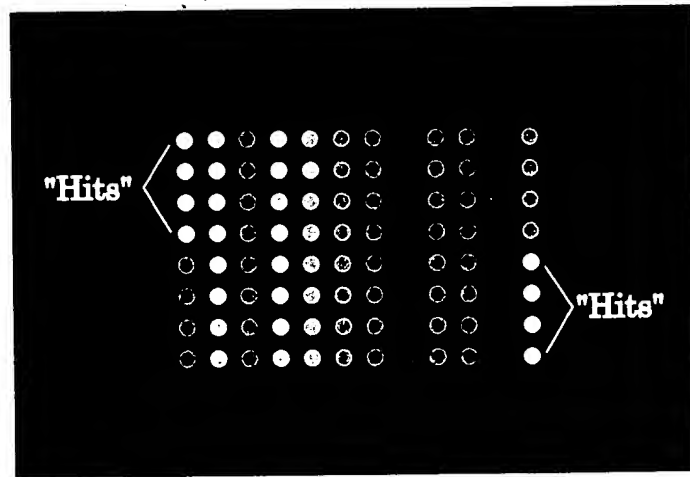
**C**



**Whole Serum  
Coated**

Figure 18

A



B

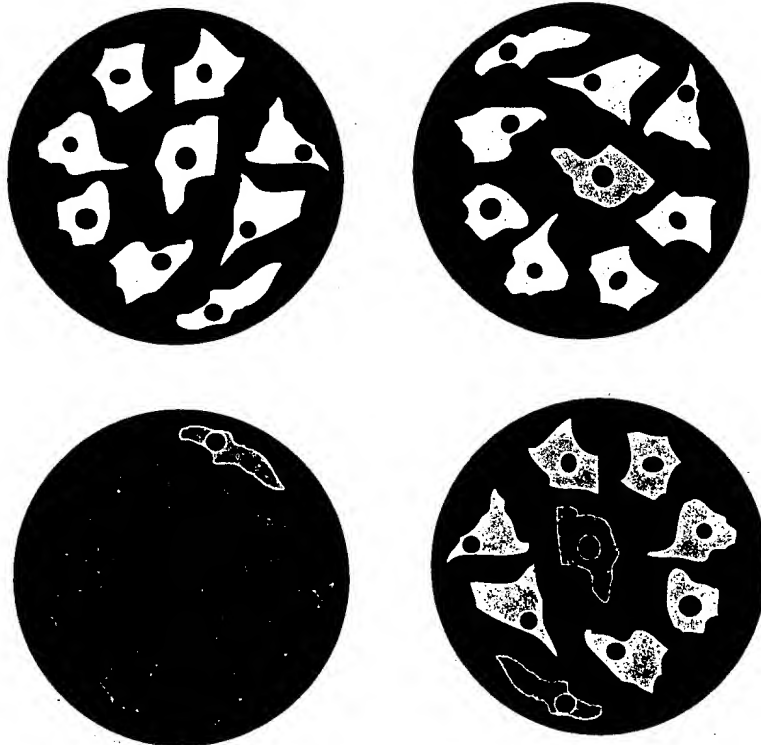


Figure 19

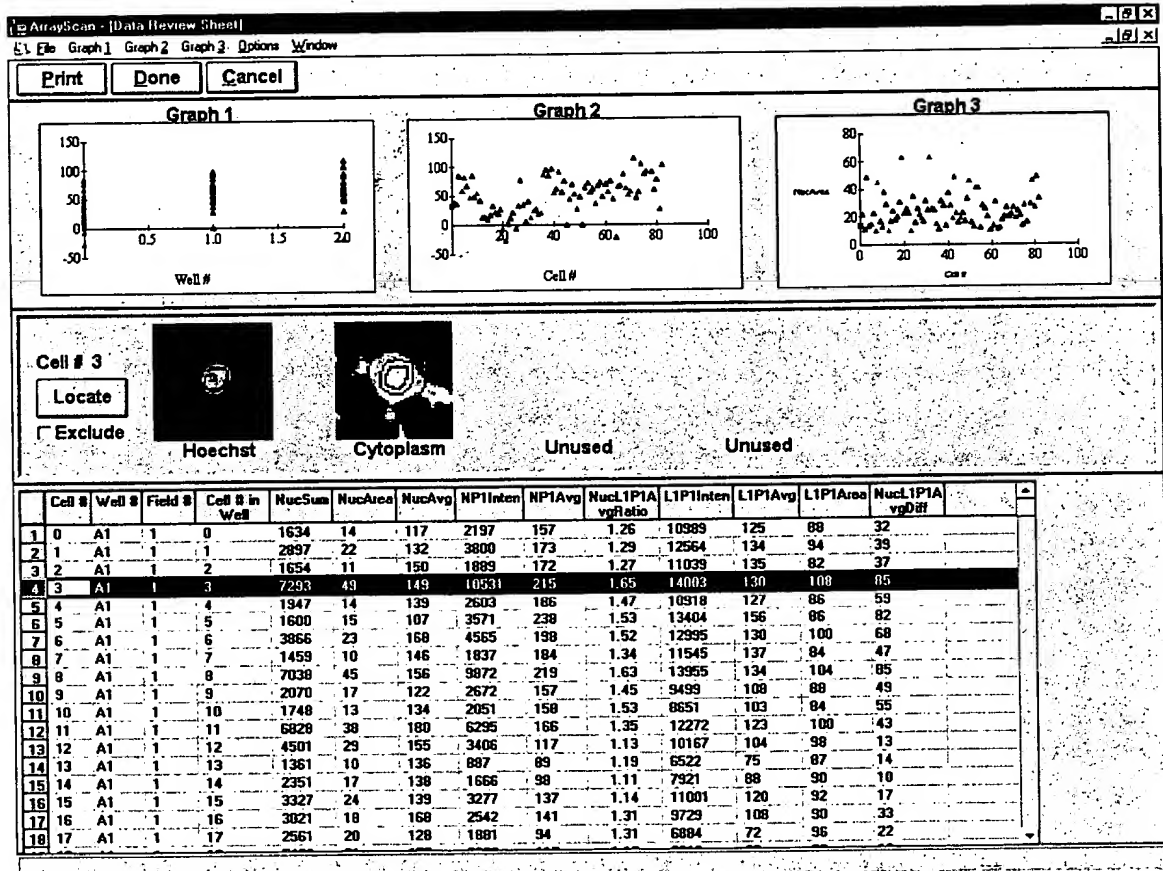


Figure 20

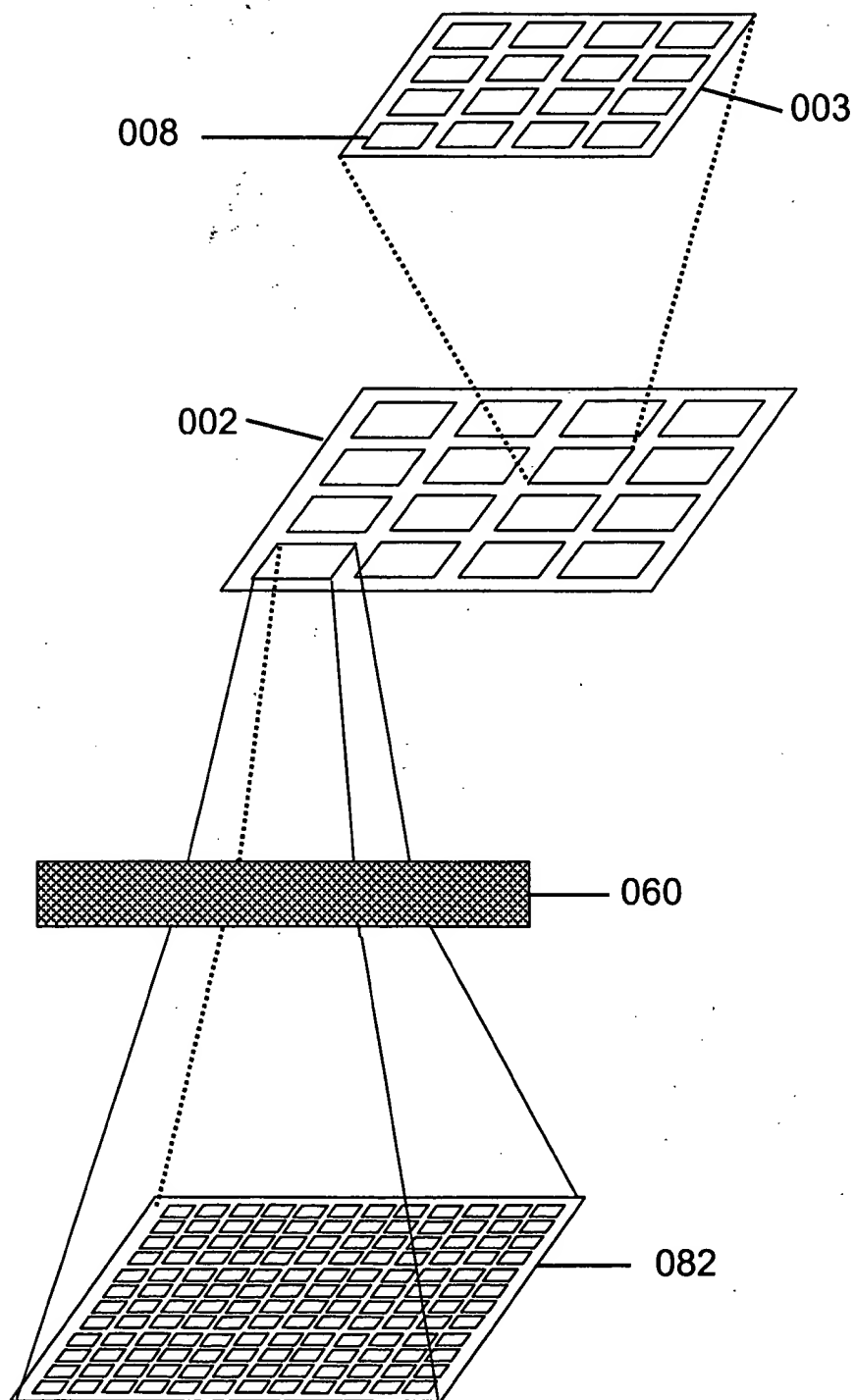


Figure 21

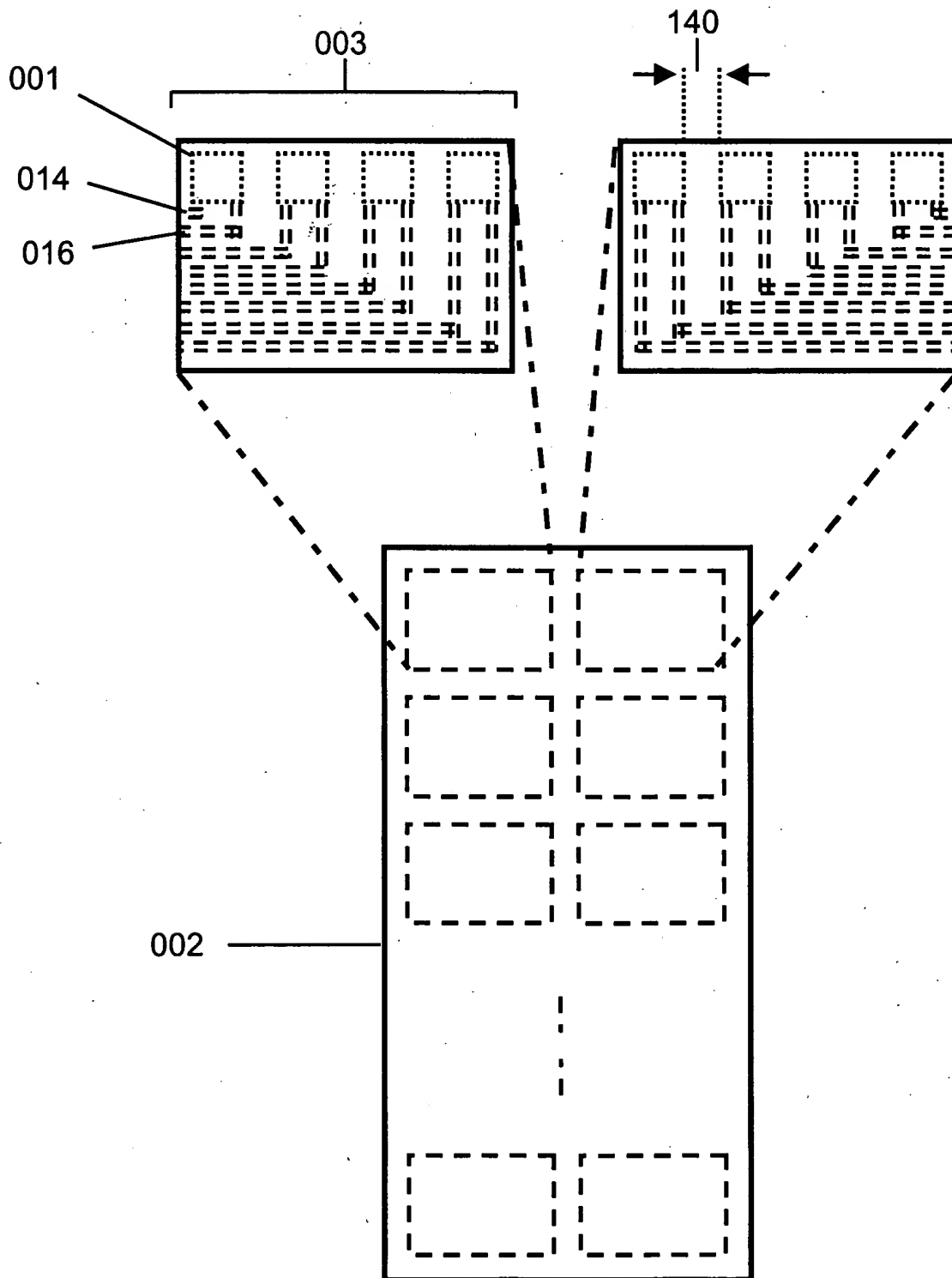
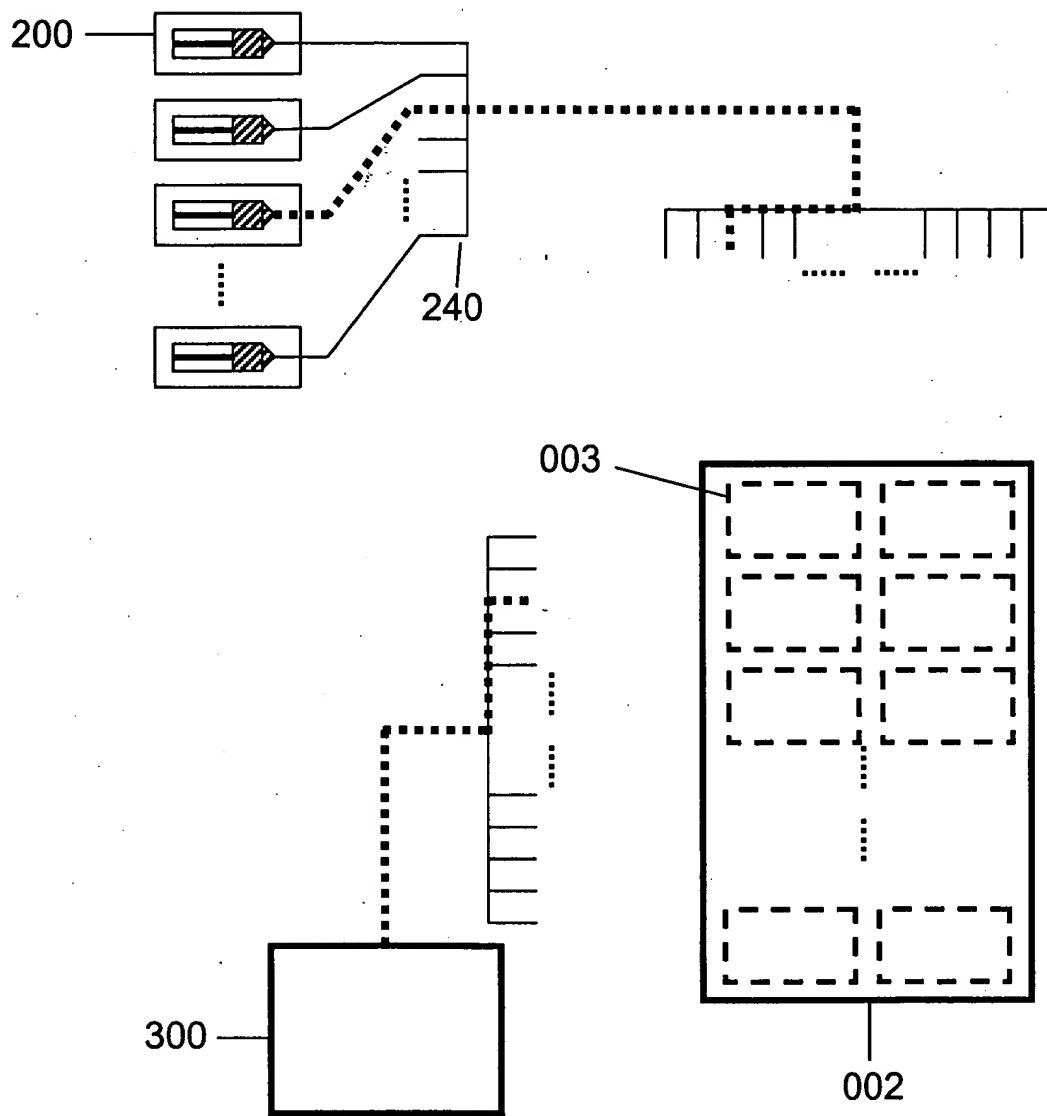




Figure 22



\_\_\_\_\_

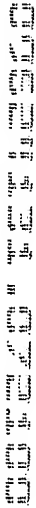


Figure 24

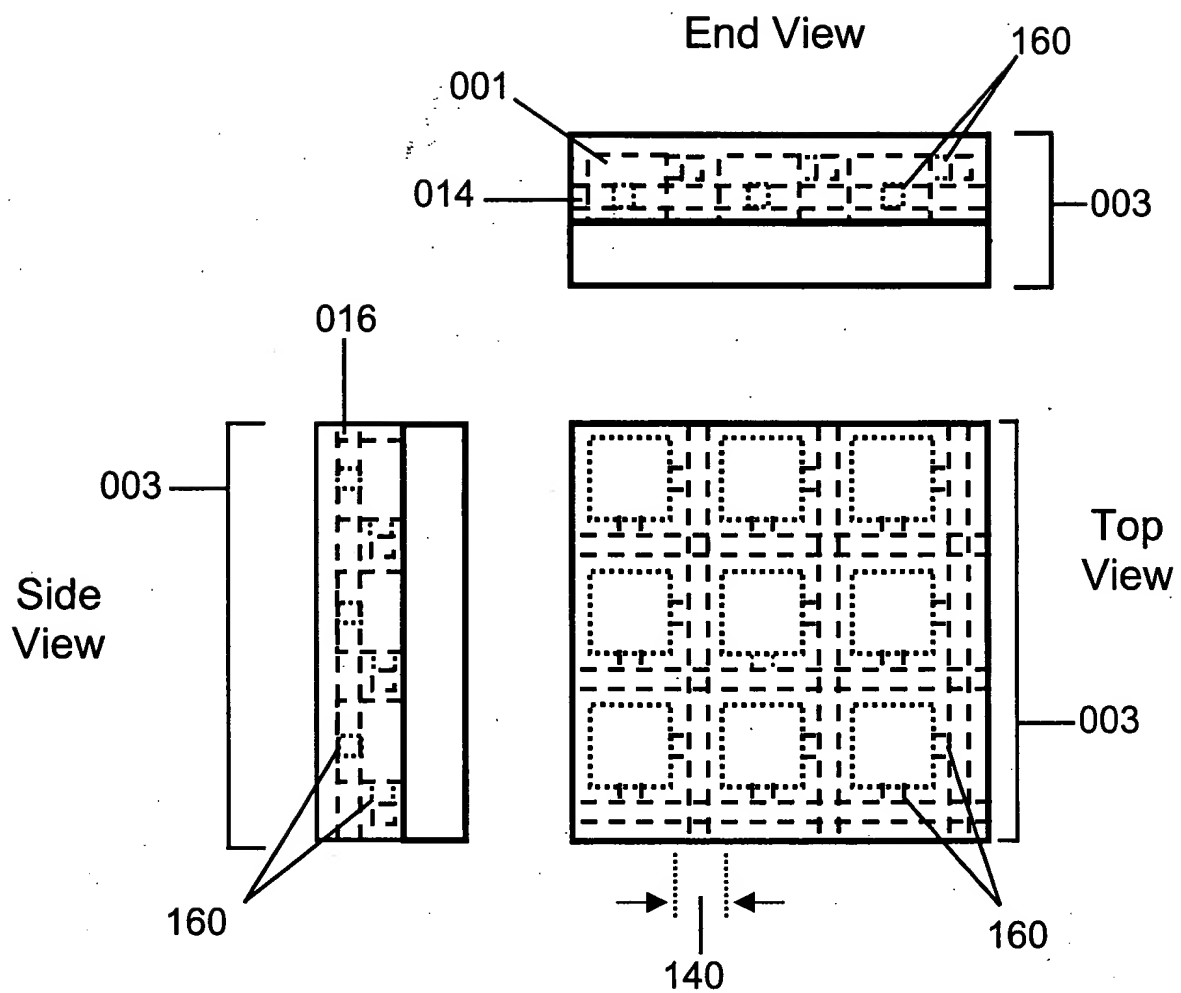


Figure 25

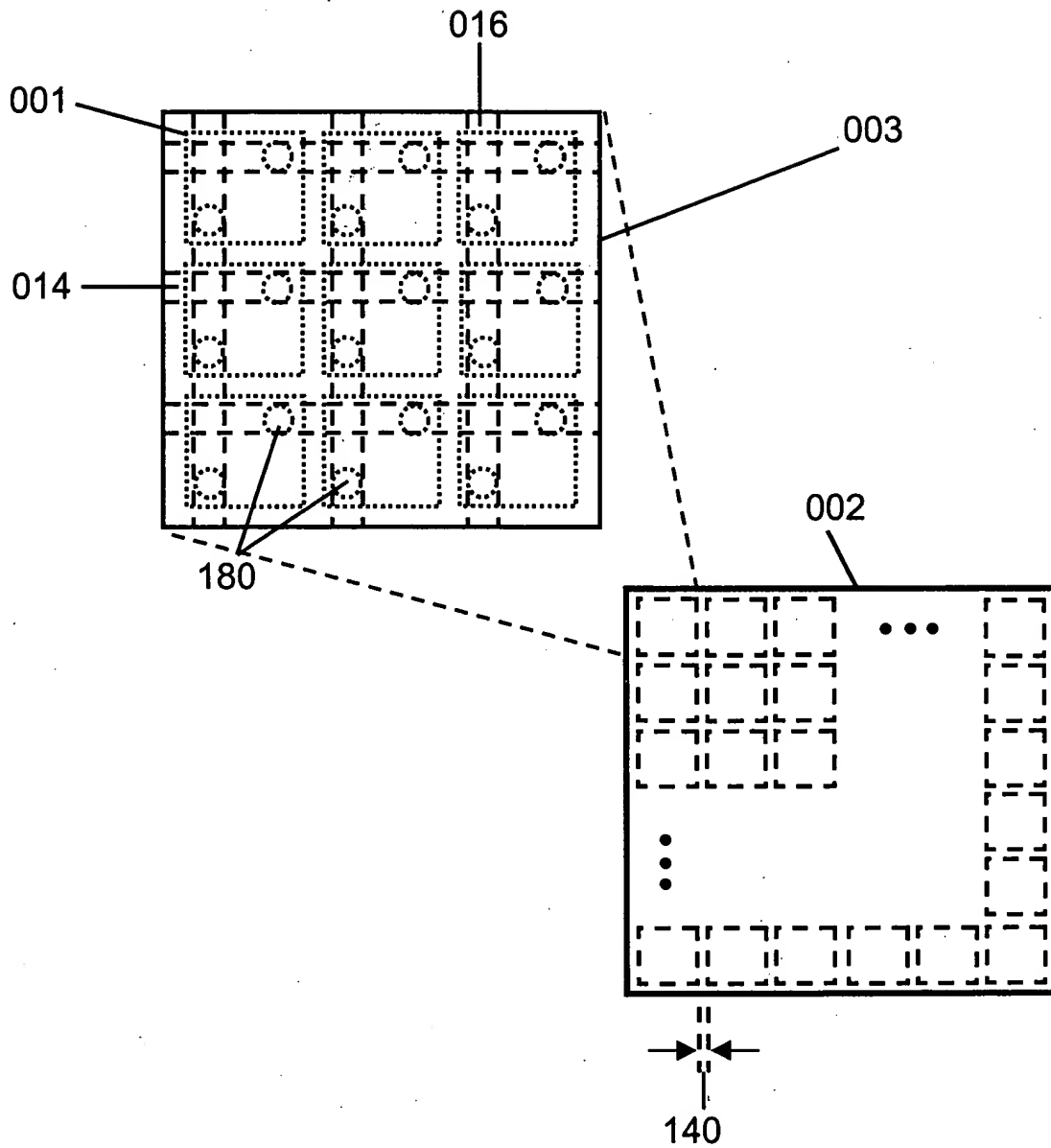


Figure 26

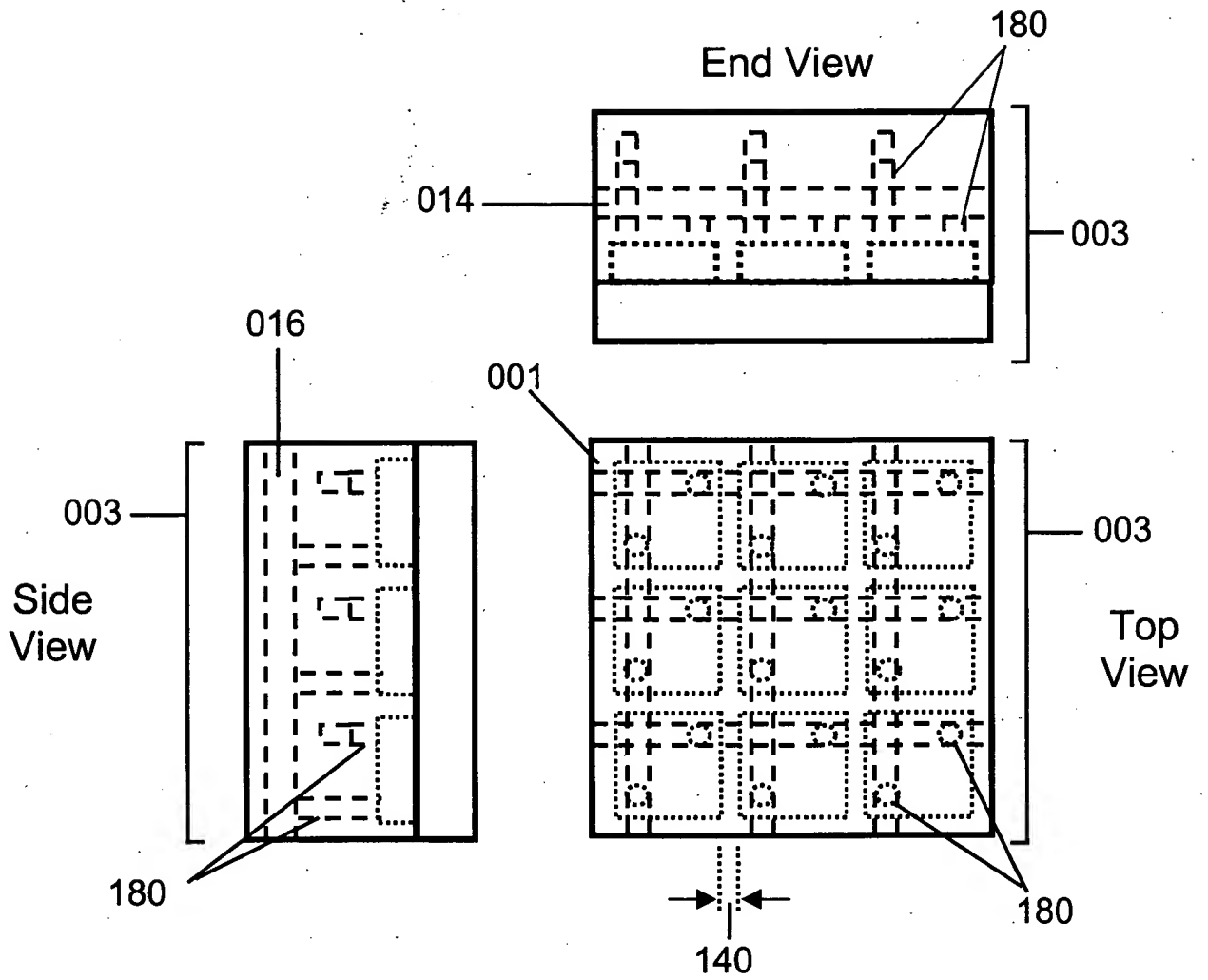


Figure 27

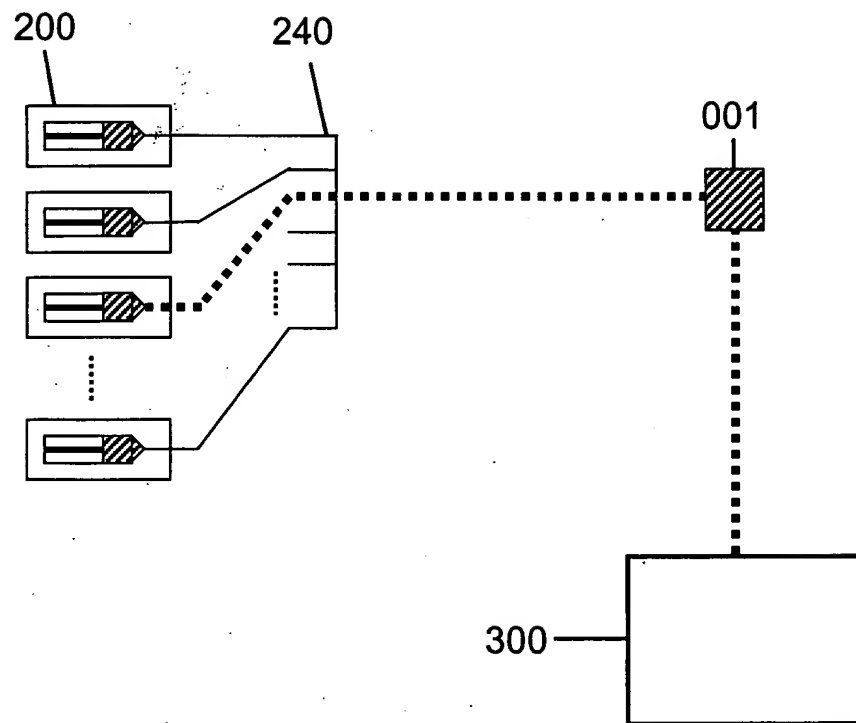


Figure 28

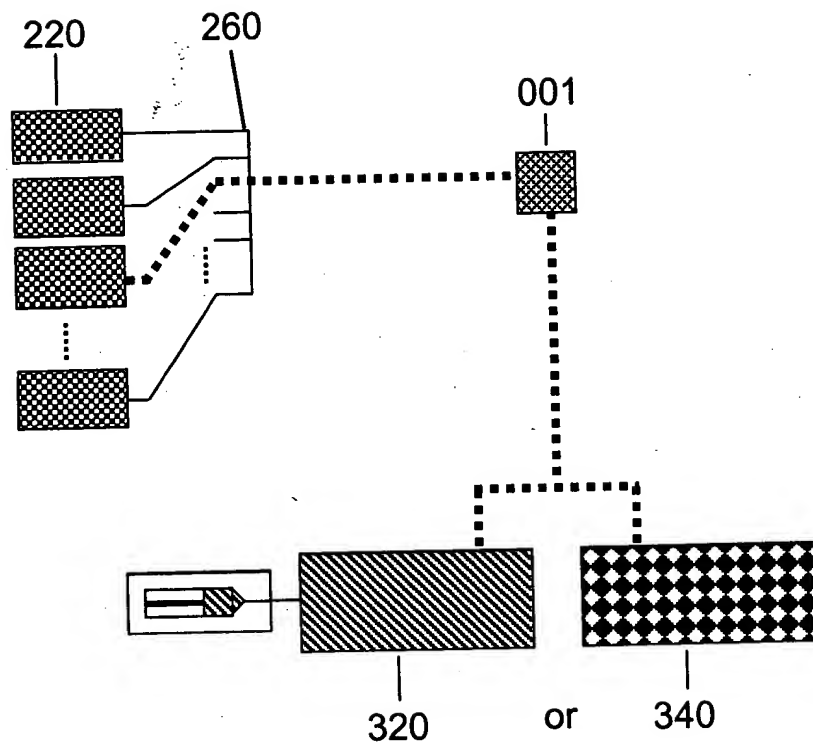


Figure 29

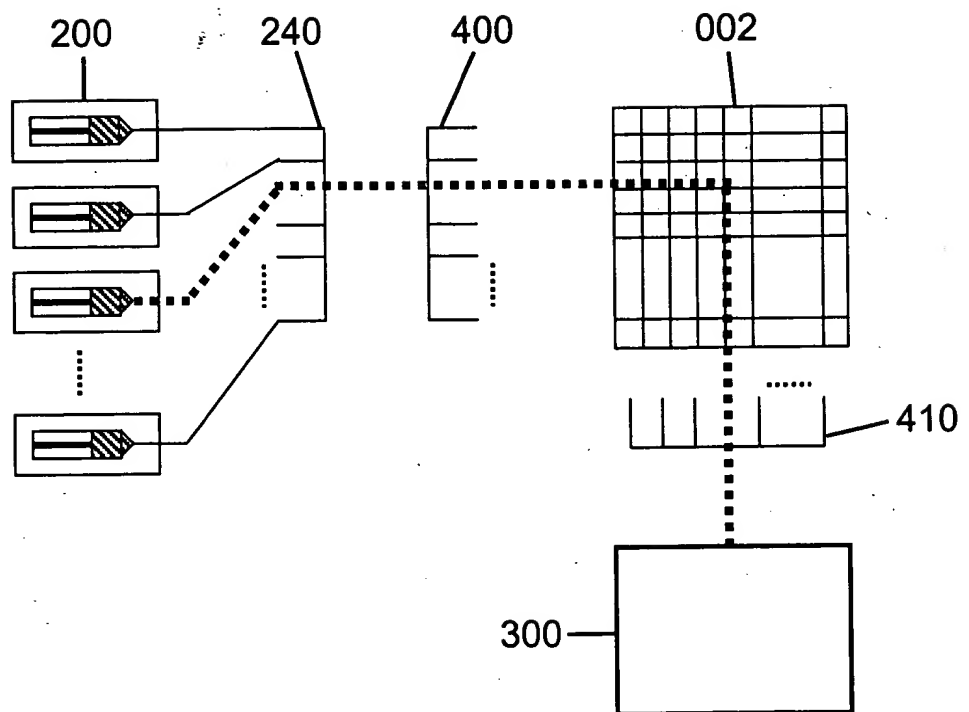




Figure 30

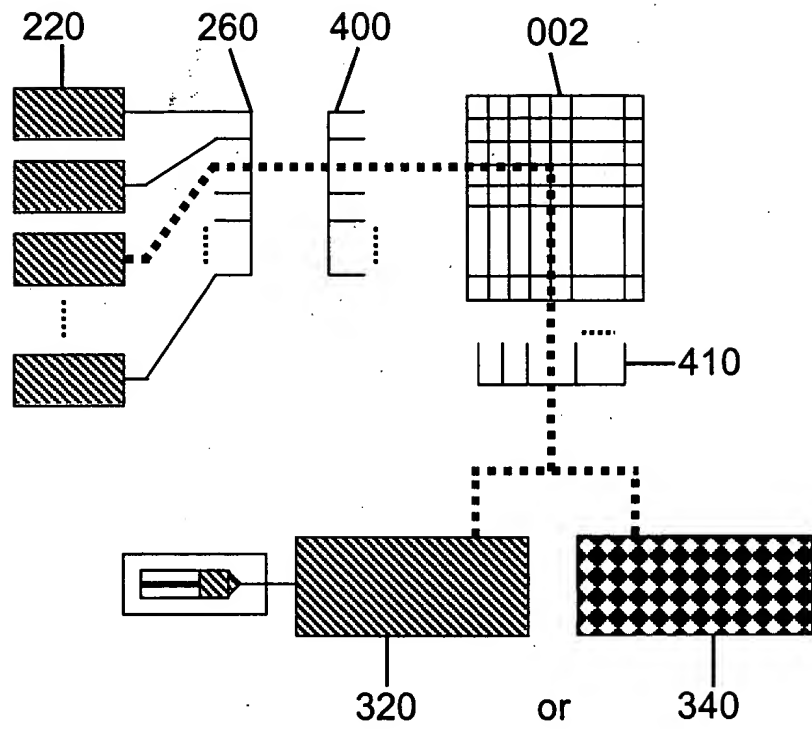


Figure 31

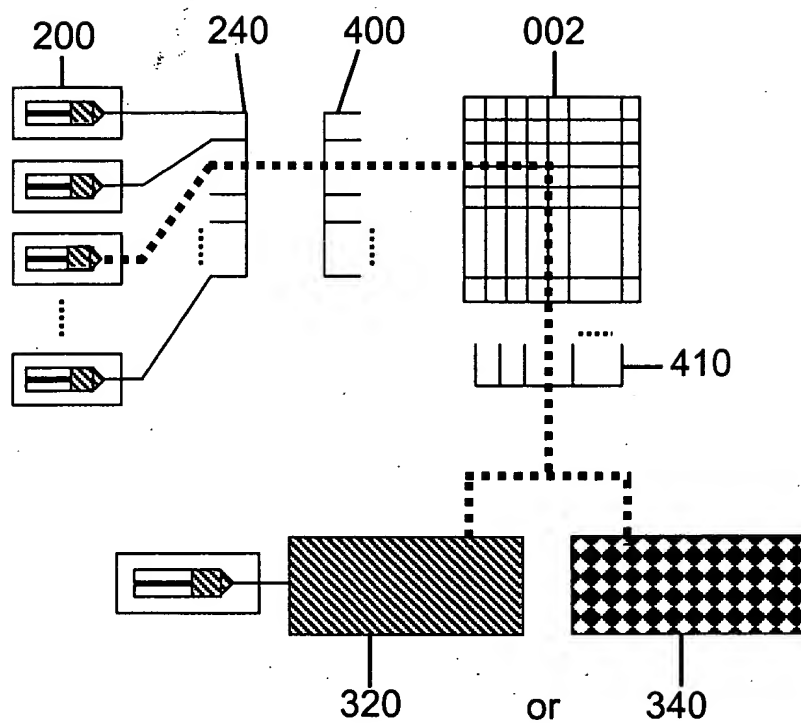


Figure 32

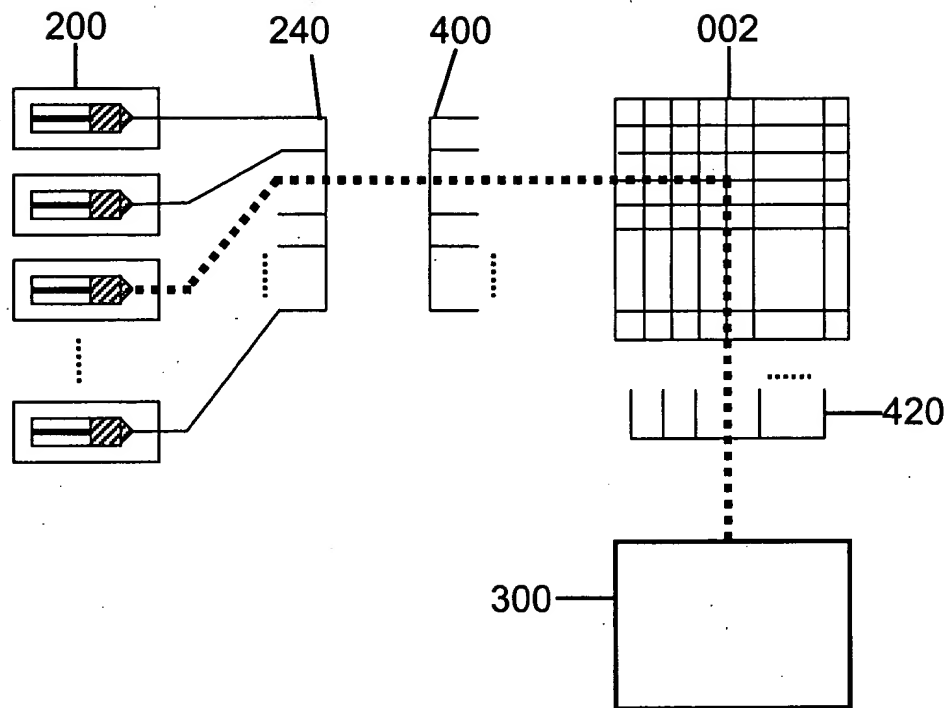


Figure 33

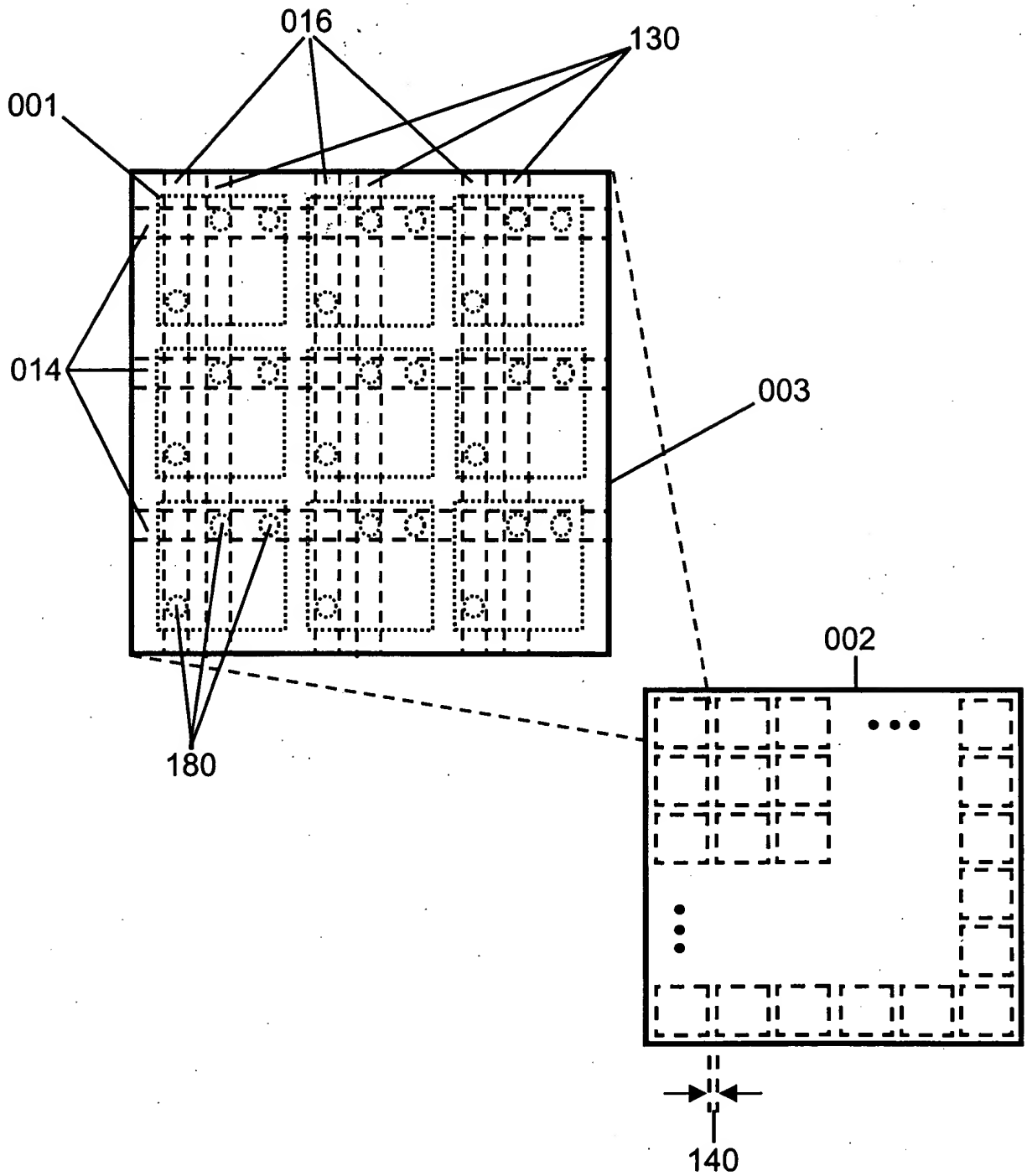


Figure 34

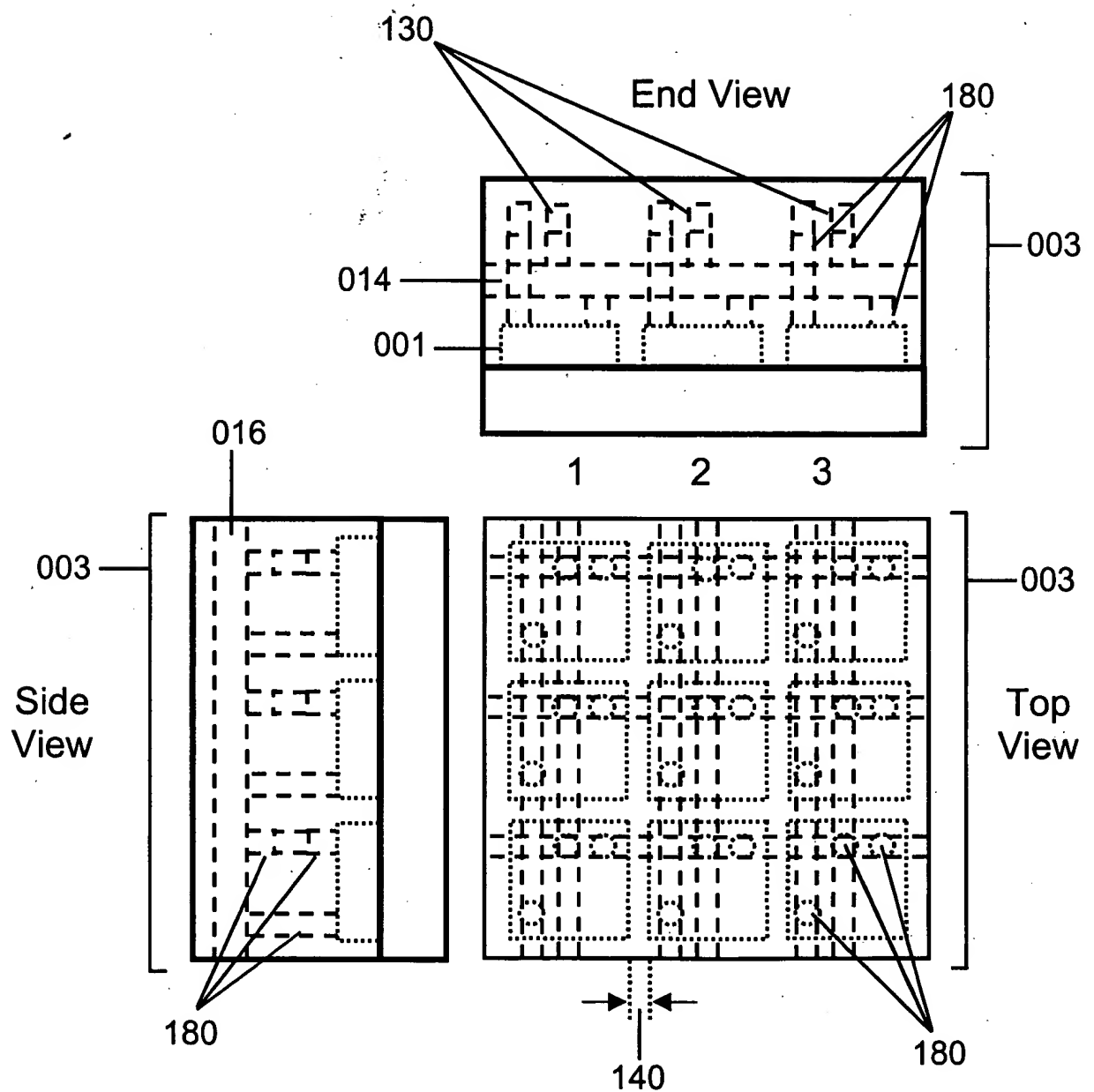


Figure 35

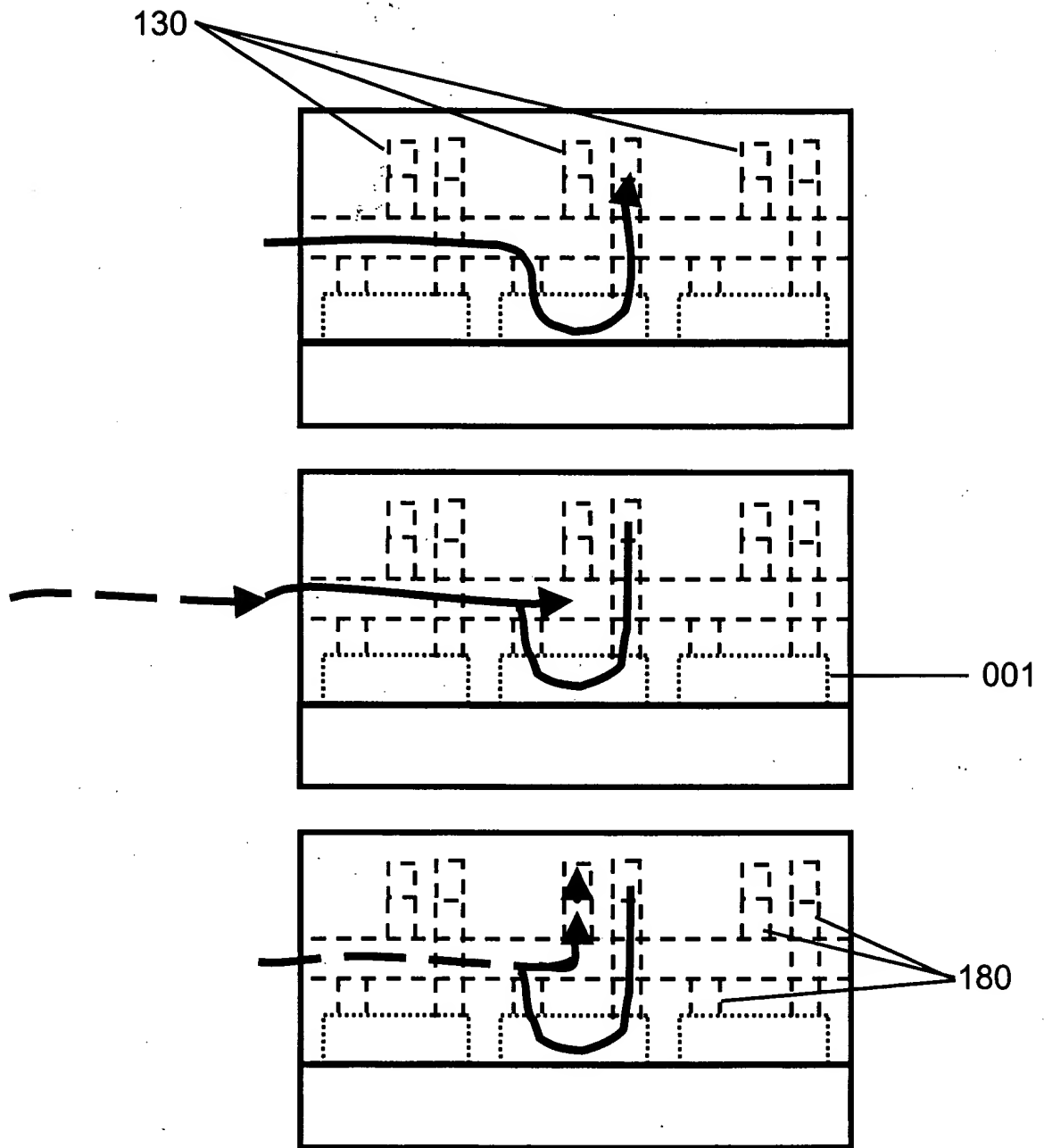


Figure 36

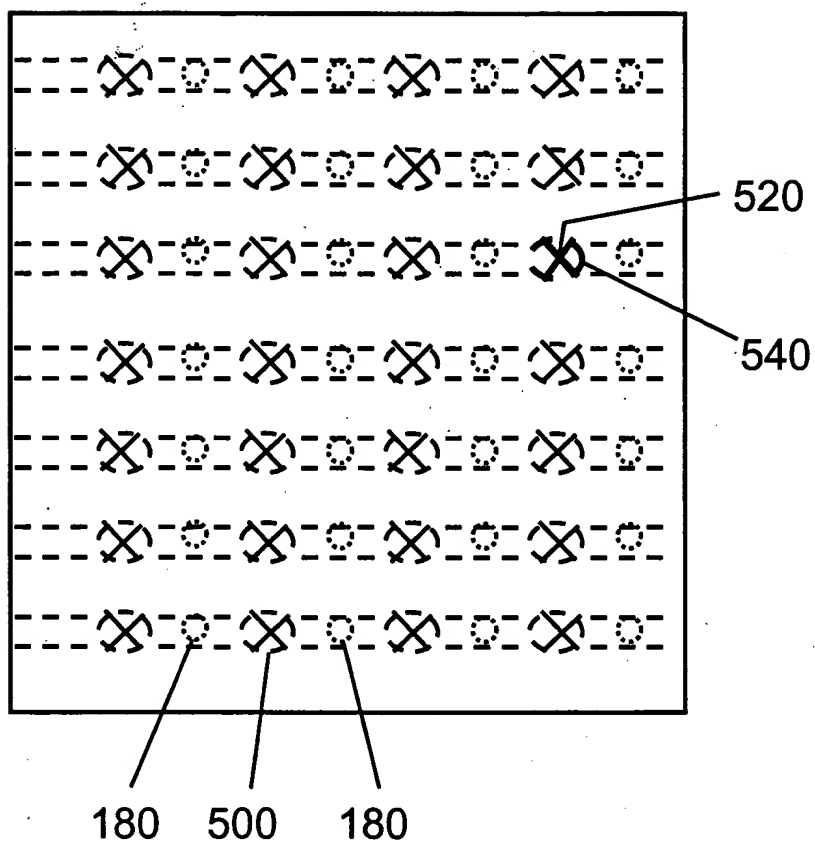


Figure 37

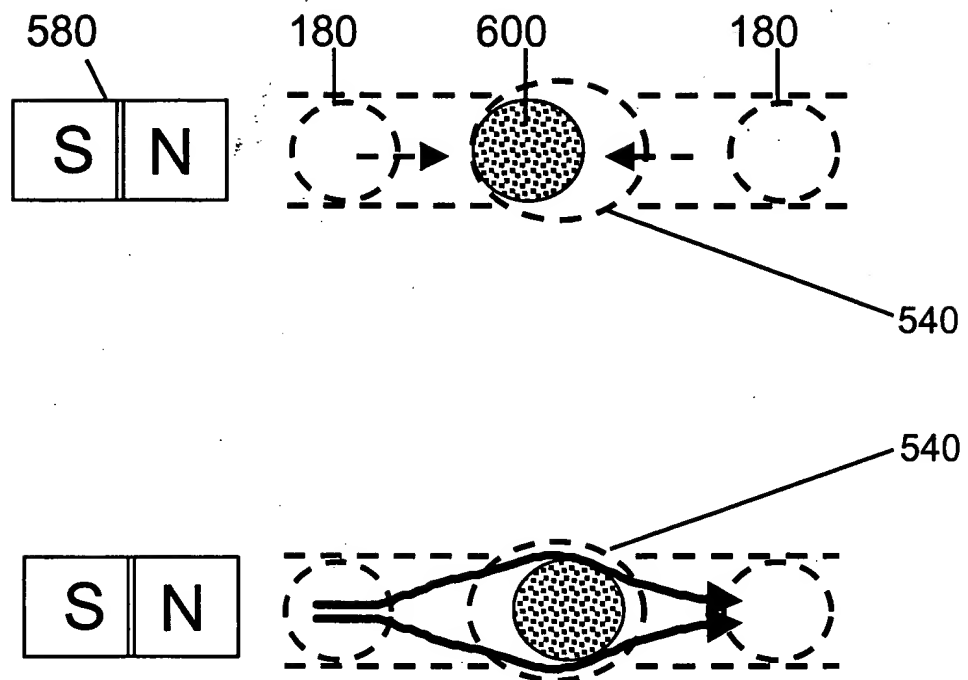




Figure 38

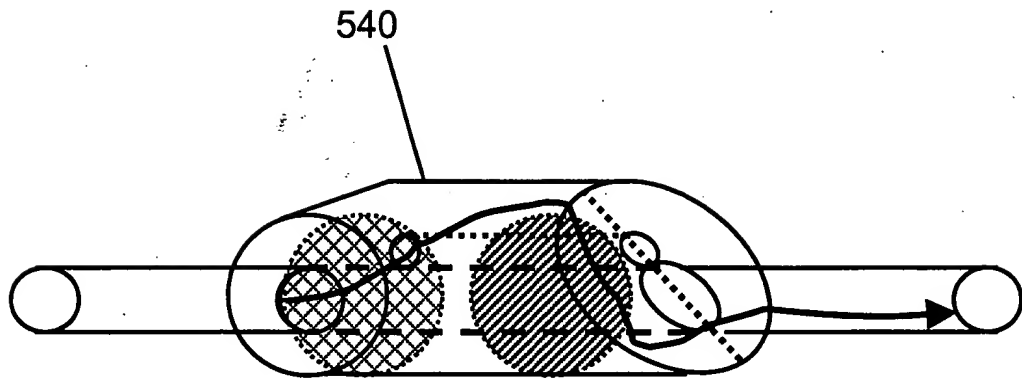


Figure 39

- open valve
- ⊗ closed valve

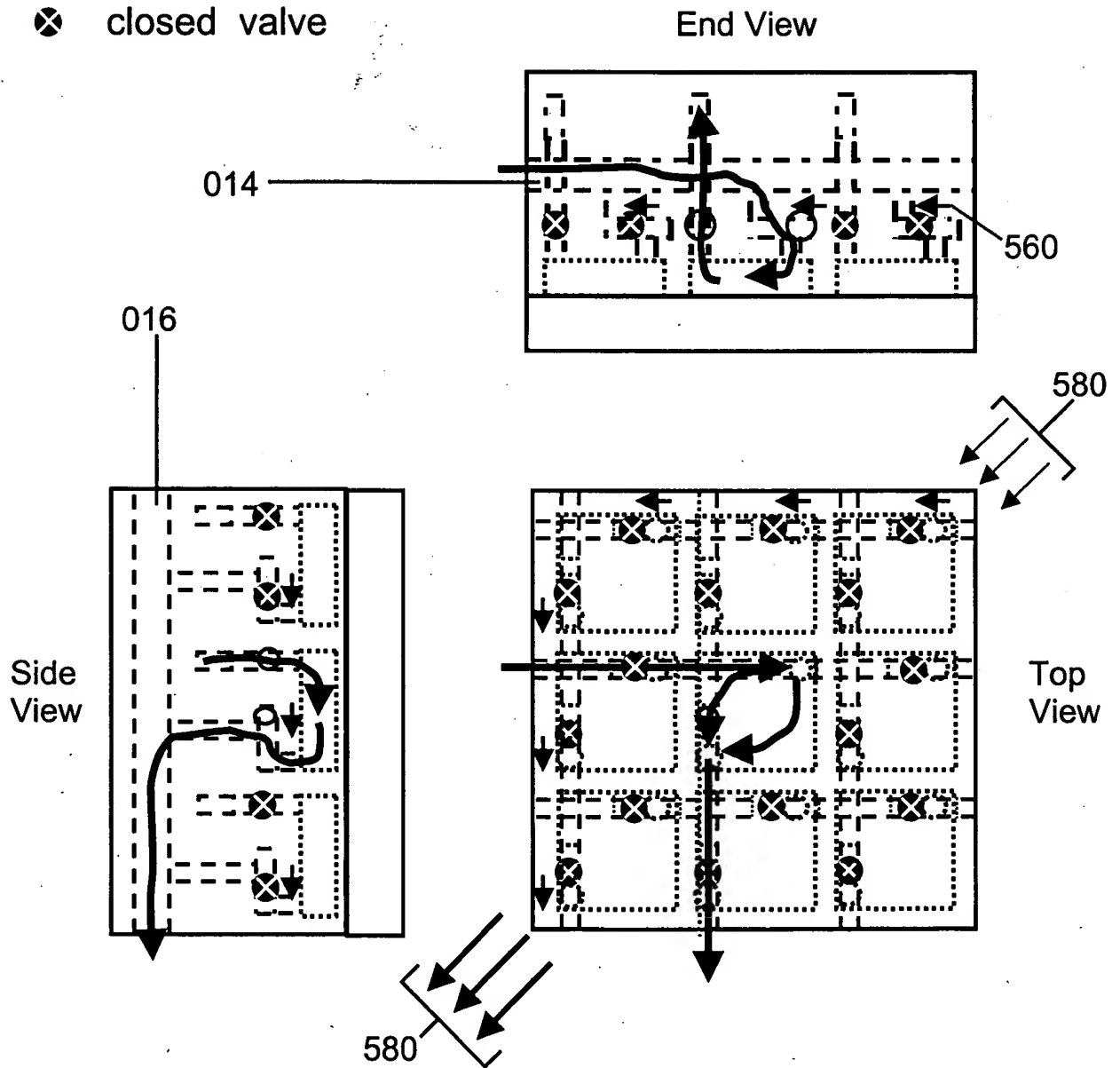


Figure 40

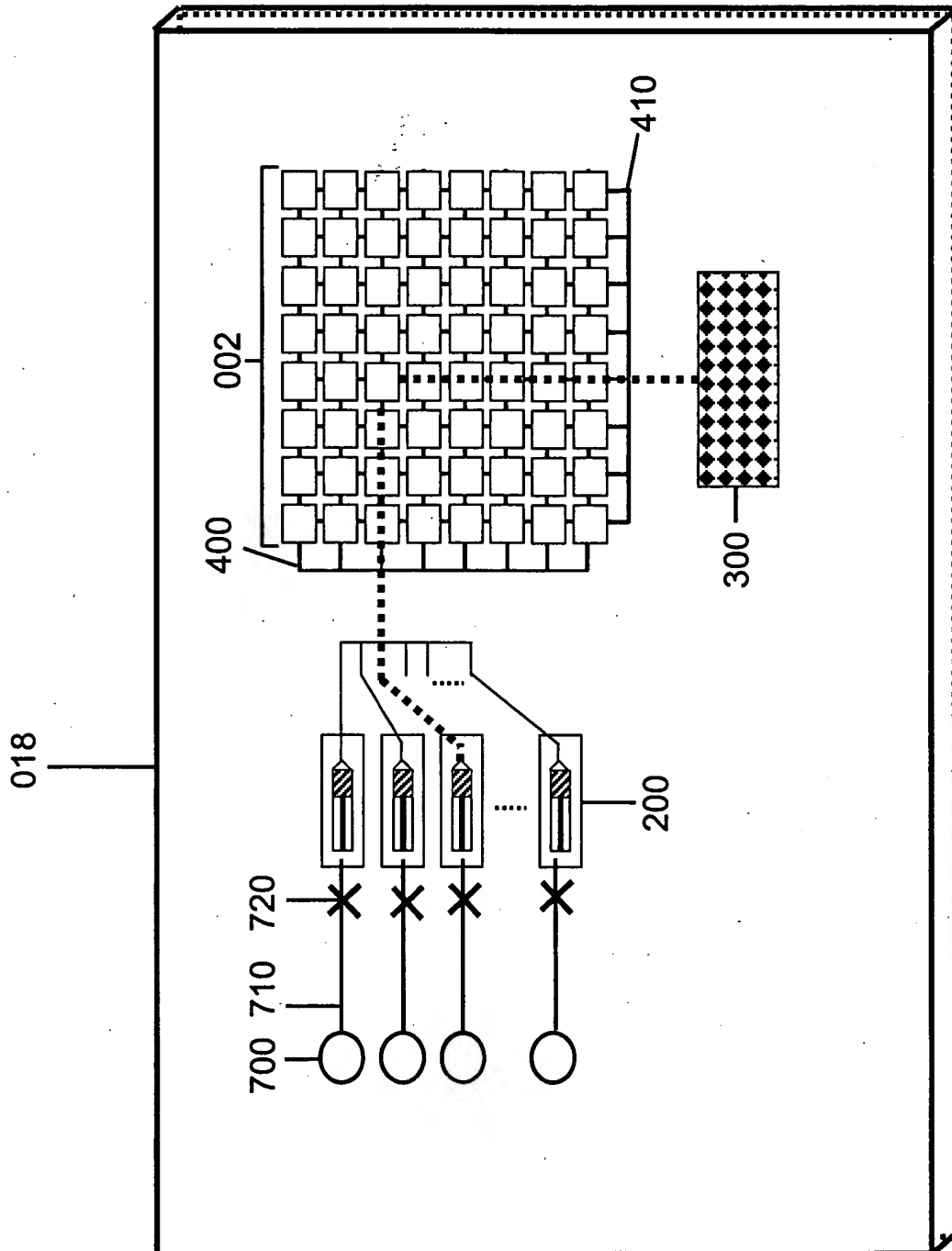


Figure 41

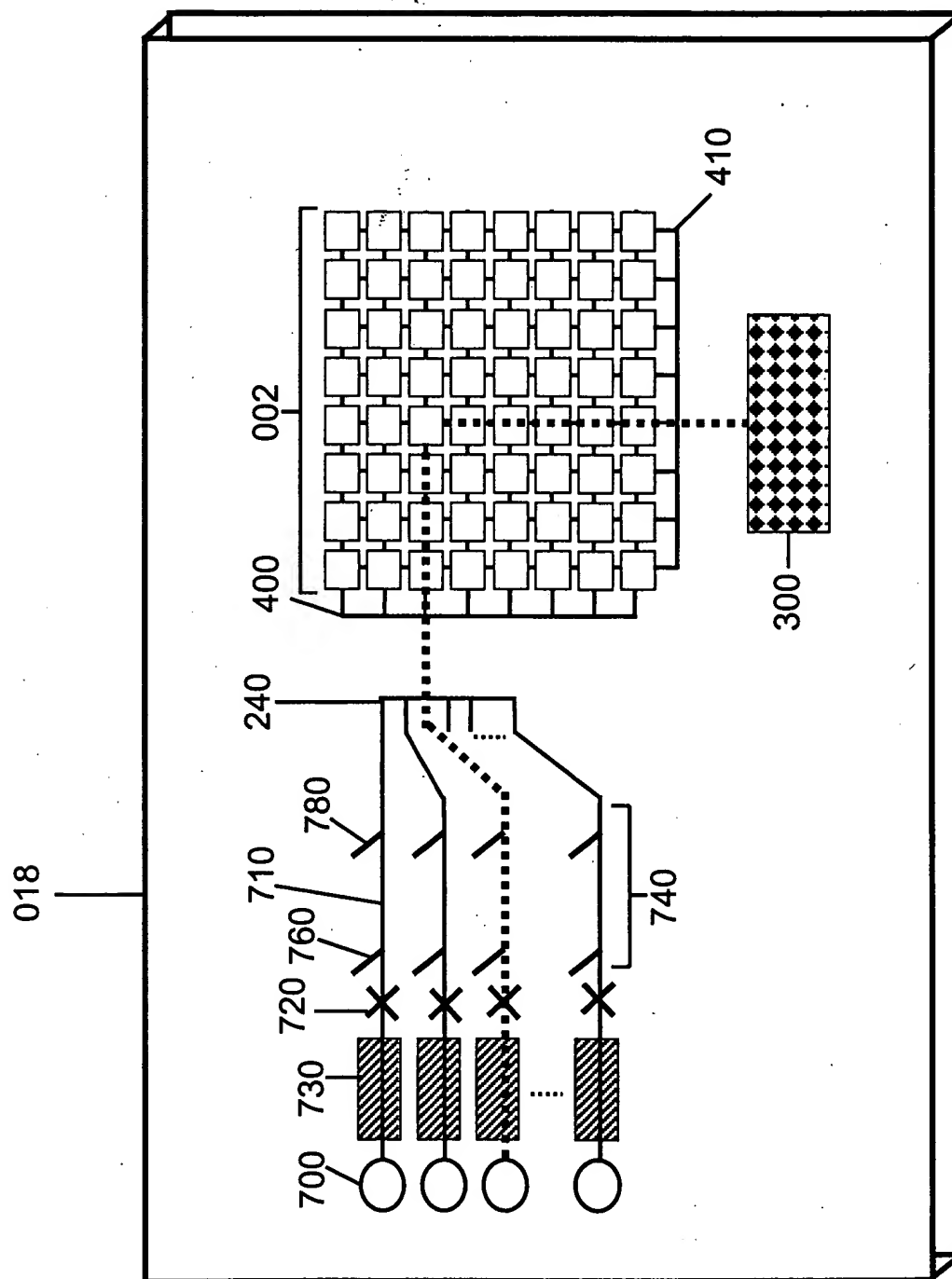
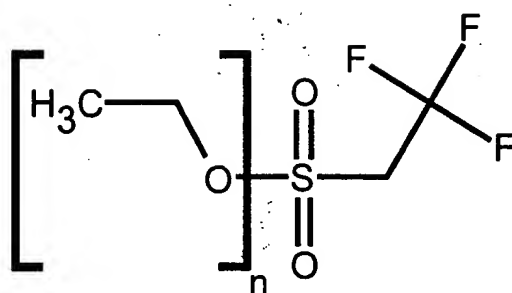
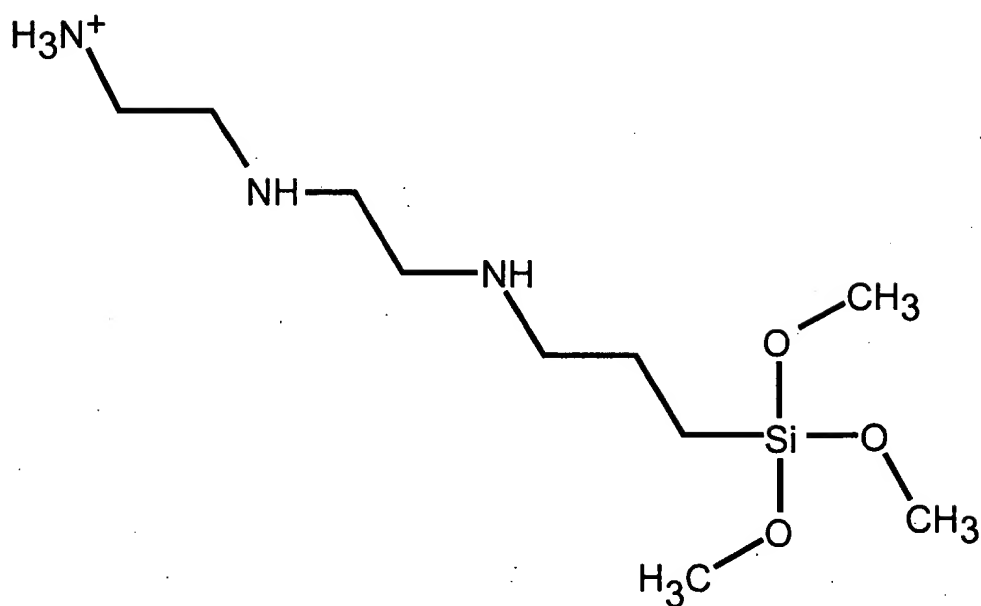


Figure 42

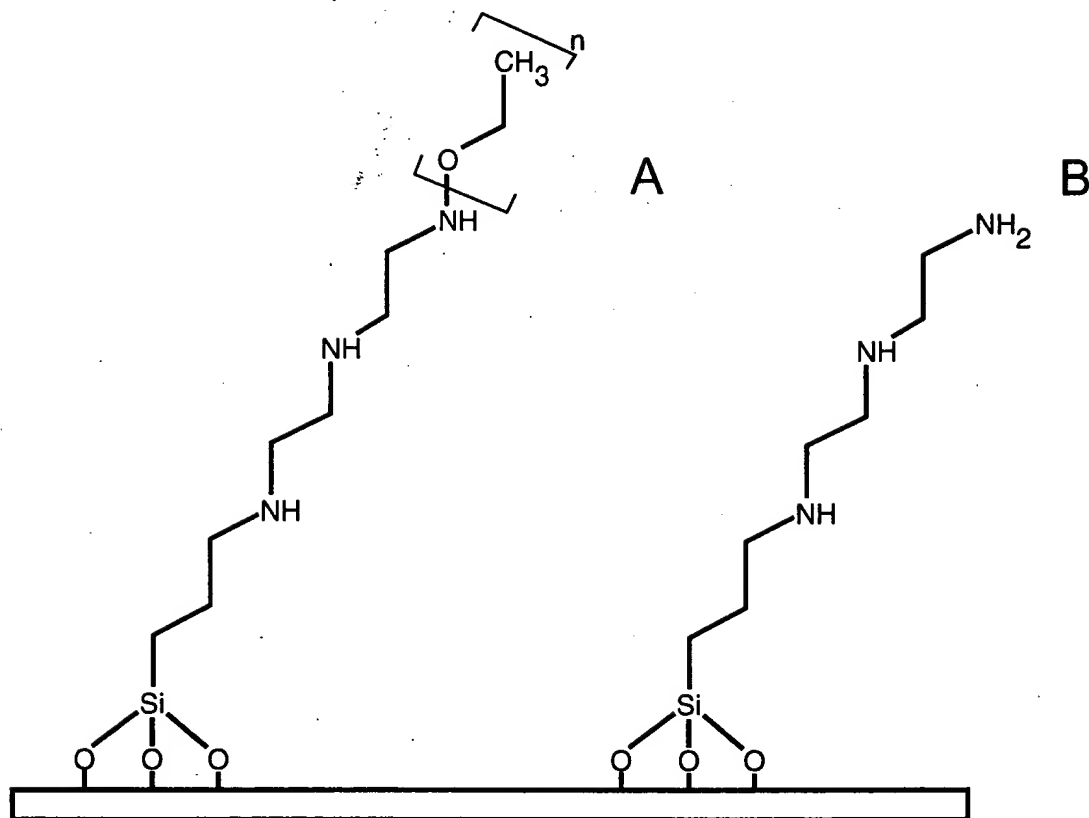


A

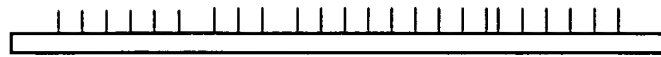


B

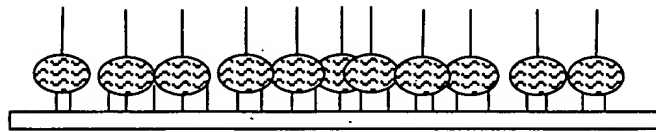
Figure 43



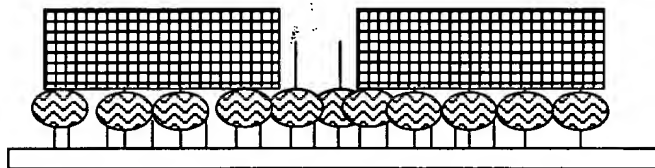
# Figure 44



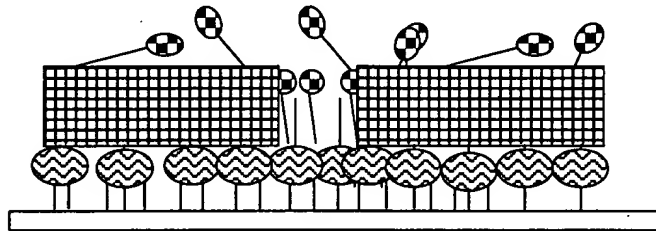
Oxidized plastic or clean glass has hydroxyl groups on the surface



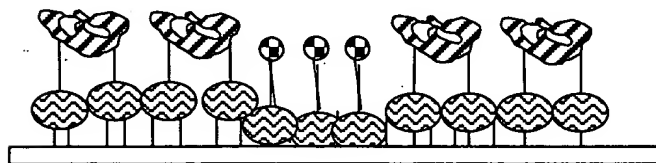
React substrate with an aminosilane



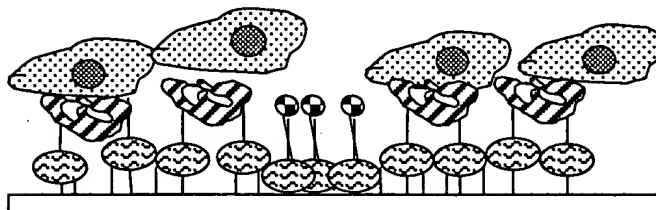
Apply stencil



Vapor or solution deposit tresyl-PEG



Remove mechanical mask and apply cell adhesive molecules



Apply cells, they will adhere to previously masked areas



Hydroxyl groups



Aminosilane

Tresyl-PEG



Cell adhesive molecules



Cells

Figure 45

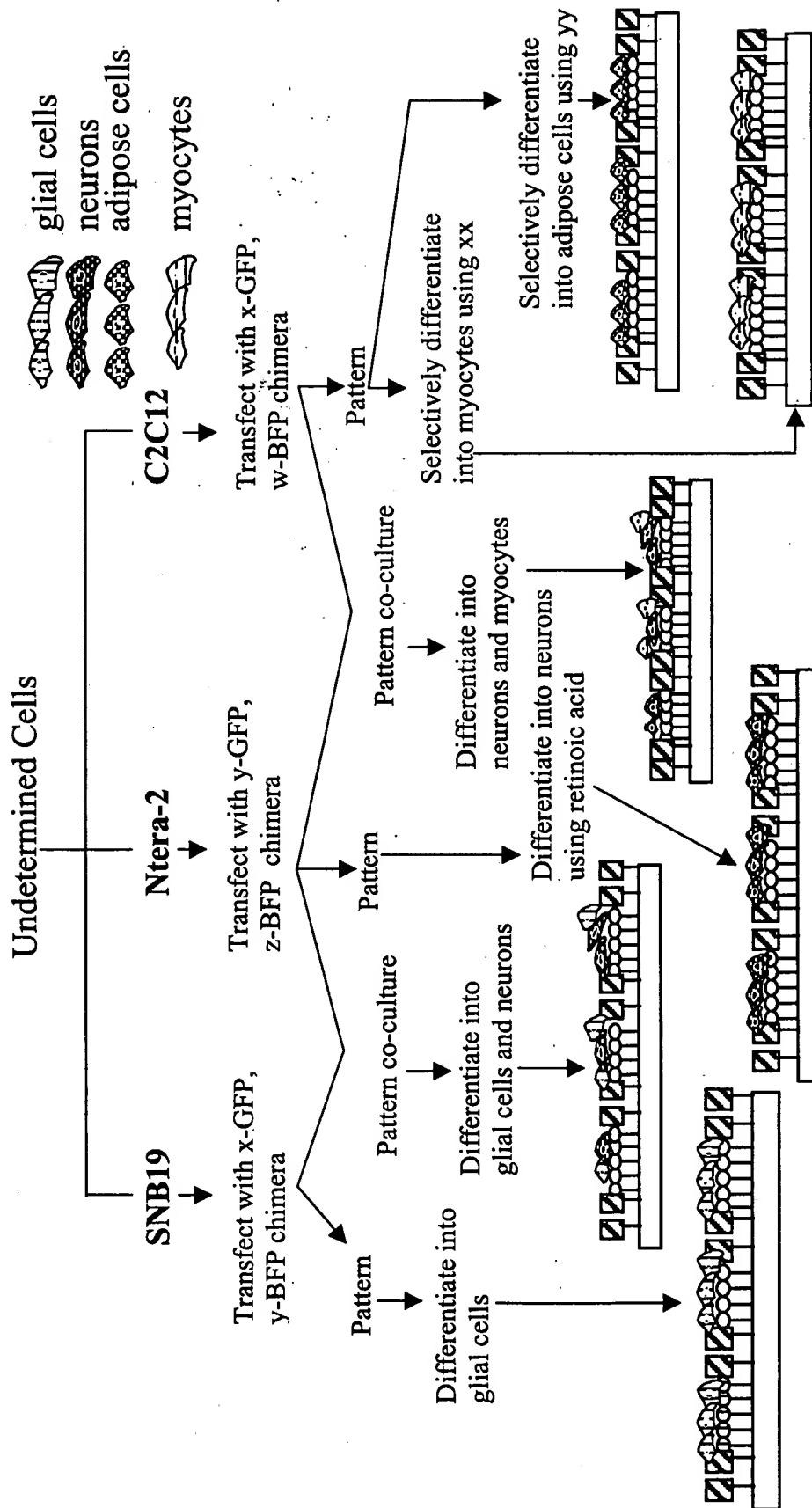




Figure 3b 4/

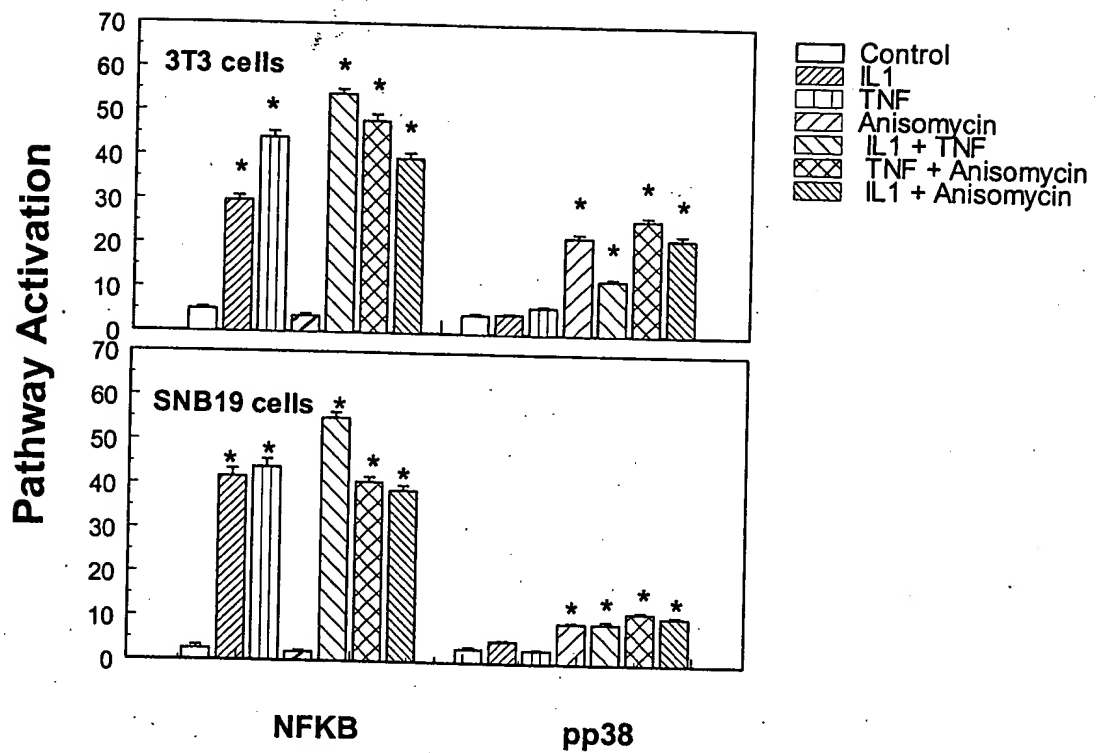


Figure 47

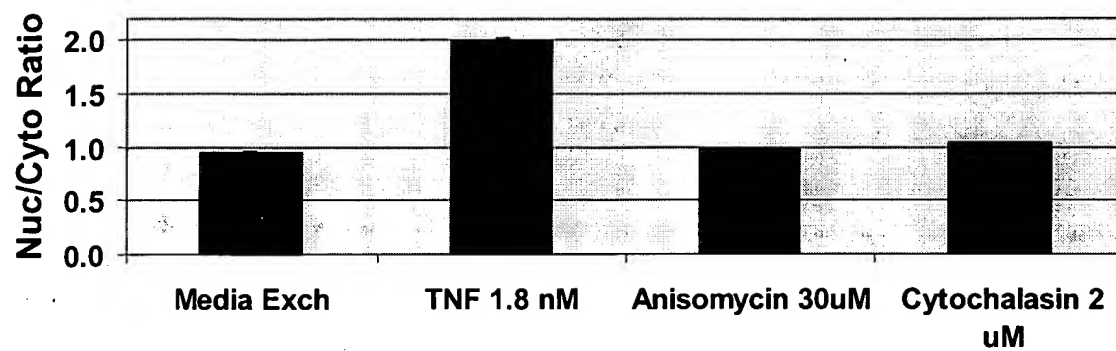


Figure 48

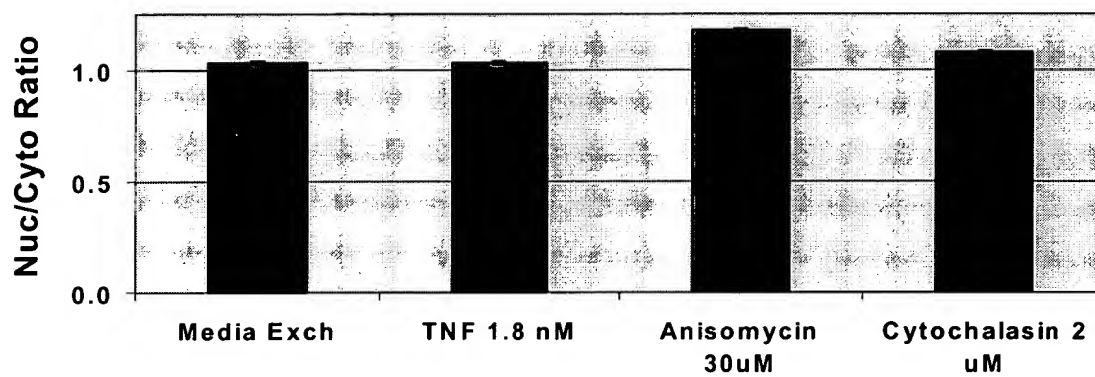
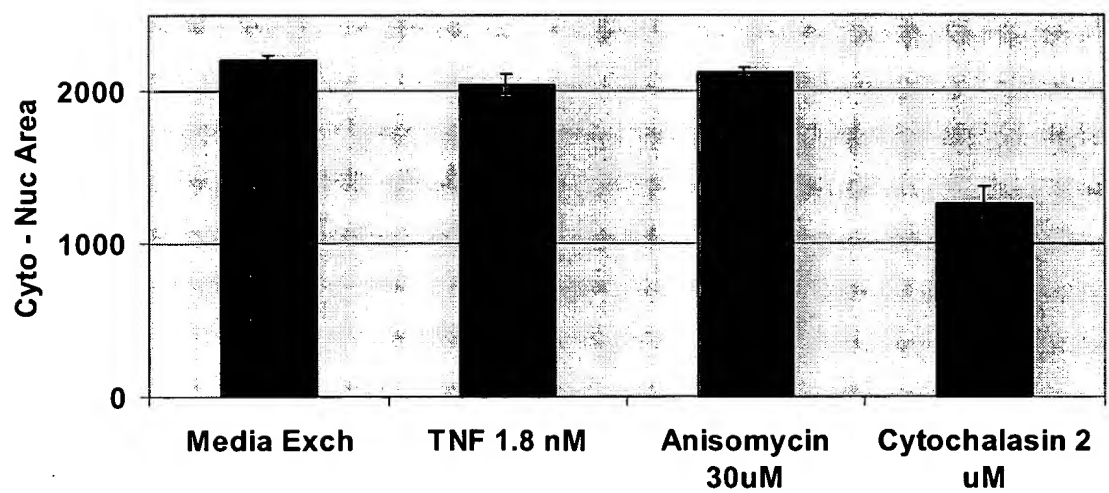


Figure 49



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